



**MONTGOMERY WATSON**

Stockpile and Post-Remedial  
Excavation Confirmation Report  
Parcel A, Report No. 11

Boeing Realty Corporation C-6 Facility  
Los Angeles, California

April 1998

**STOCKPILE AND POST-REMEDIAL  
EXCAVATION CONFIRMATION REPORT  
PARCEL A  
REPORT NO. 11**

**BOEING REALTY CORPORATION C-6 FACILITY  
LOS ANGELES, CALIFORNIA**

**April 1998**

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## **SECTION 1.0**

### **INTRODUCTION**

In October 1996, Montgomery Watson (Montgomery) was retained by McDonnell Douglas Realty Company, now the Boeing Realty Corporation (BRC), to assist with the redevelopment of Parcel A (the Site) of their C-6 Facility located in Los Angeles, California. Figure 1 presents the C-6 Facility. Figure 2 delineates the Site. The Site was formerly used to manufacture and store aircraft parts.

#### **1.1 OVERVIEW**

The Site consists of the northernmost quarter of the C-6 Facility, encompassing approximately 50 acres. Demolition of the following buildings has occurred: Building 29, 33, 34, 36, 37, 40, 41, 43/44, 45, 57, 58, 61, 66-A, and 67.

Information gathered during the data compilation and evaluation phase of this project indicated the presence of petroleum products and other chemicals of concern in the surface and subsurface.

A soil sampling and remedial excavation effort was conducted in conjunction with the removal of foundations, slabs, and below-ground structures. The purpose of this effort was to assess soil quality and remove soil affected with petroleum hydrocarbons and other chemicals of concern in preparation for redevelopment of the Site. Soil which was determined to be affected with petroleum hydrocarbons and other chemicals was excavated and placed into Land Treatment Units at the Site. Confirmation samples were collected along the floor of each remedial excavation to confirm that the surface soil (upper 12 feet) met soil screening criteria at sample locations.

Excavated soil and confirmation samples discussed in this report were generated from one remedial excavation conducted east of Building 37.

#### **1.2 PURPOSE AND OBJECTIVES**

The lead agency for this project is the Los Angeles Regional Water Quality Control Board (RWQCB). The process of screening excavated soil and confirming *in situ* soil quality as presented in this document has been approved by the RWQCB. Following the initial review and implementation of this process, the RWQCB has allowed BRC to undertake excavation and backfilling operations without intermittent agency review. All BRC decisions based upon the approved soil screening process are documented for final agency review and approval. This approach was developed to expedite the soil quality evaluation process, and this report has been prepared to document the process used by BRC to evaluate excavated and residual soil at Site locations discussed herein.

Specifically, the purpose and objectives of this report are:

- 1) To document the quality of the stockpiled soil generated from remedial excavations according to the Facility-wide soil screening criteria, and the process by which the stockpiled soils were divided into two categories: (a) soils requiring treatment or off-site disposal, and (b) soils suitable for use as construction backfill at the Site.
- 2) To document that surface soil (upper 12 feet) in each remedial excavation meets the established soil screening criteria.

## **SECTION 2.0**

### **REMEDIAL EXCAVATION**

A remedial excavation was conducted at a storm drain east of the former location of Building 37. The remedial excavation was conducted where hot spot sampling results indicated the presence of affected soil. This remedial excavation was recorded using the following nomenclature:

Building 37 Storm Drain (B37ST) - Remedial Excavation (RE) - Chronological Number (#)  
e.g., B37ST-RE-1

The location of remedial excavation B37ST-RE-1 is presented in Figure 3. The 20-foot by 20-foot grid used to reference previous Building 37 remedial excavations was extended to the location of B37ST-RE-1 for the same purpose.

Pertinent information related to the remedial excavation and the associated excavated soil discussed in this report is presented below. The locations of each stockpile are presented in Figure 4.

<b>Excavation</b>	<b>Approximate Volume</b>	<b>Date of Excavation</b>	<b>Excavated Soil Location</b>
B37ST-RE-1	1180 cu yds	10 Mar 98	North and west of excavation.

#### **2.1 SOIL SAMPLING**

Hot spot sampling and confirmation sampling have been employed at the remedial excavation discussed in this report. Detailed procedures for these activities are outlined in the *Sampling and Analysis Plan for Demolition Activities at the Douglas Aircraft Company C-6 Facility* prepared by Integrated Environmental Services, Inc. (IESI, 1997(a)) which has been reviewed and approved by the RWQCB. These procedures can be summarized as follows:

##### **2.1.1 Hot Spot Sampling**

Hot spot sampling was conducted at predetermined locations where former items of concern were located (e.g., railroad spurs and storm drains), and at other locations where demolition activities revealed soil which may have been affected by petroleum hydrocarbons or other chemicals of concern.

Hot spot samples were collected by first exposing "fresh" soil beneath the surface using a stainless steel utensil or similar device. A photoionization detector (PID) was used to measure headspace organic vapor concentrations in the freshly exposed soil at each location. Soil samples were collected for analysis where at least one of the following conditions existed: 1) the headspace VOC reading exceeded 5 ppm, (2) areas where staining of the soil was visible, or (3) areas where odors were noticeable.

Soil samples were collected for analysis in pre-cleaned, stainless steel sleeves by driving the sleeve into the soil with a rubber mallet or drive sampler. The ends of the sleeves were then covered with Teflon film and secured with plastic end caps. A unique sample identification using the following nomenclature was written in indelible ink on a sample label and attached to the sleeve:

Railroad Spur (RR) - Grab Sample (GS - Chronological Number (#) - Sample Depth (feet)  
e.g., RR-GS-13-4'

Sample sleeves were placed in a cooler with blue ice and transported under chain-of-custody to a State-certified laboratory for analysis. Hot spot samples have been analyzed according to the analytical schedule presented in Table 1.

Hot spot sample locations discussed in this report have been subsequently excavated and data collected from these samples are considered representative of the corresponding stockpile soil quality.

### **2.1.2 Stockpile Sampling**

Excavated soil was placed in two stockpiles located north and west of the remedial excavation. One stockpile sample was collected from each stockpile. Stockpile samples were collected from the most noticeably affected soil within the stockpile. Samples were collected by using a shovel to cut vertically into the side of a stockpile at each sample location to expose "fresh" soil; samples were then collected from the exposed vertical wall and headspace VOC concentrations were measured using the PID.

Soil samples were collected for analysis in pre-cleaned, stainless steel sleeves by driving the sleeve into the soil with a rubber mallet or drive sampler. The ends of the sleeves were then covered with Teflon film and secured with plastic end caps. A unique sample identification using the following nomenclature was written in indelible ink on a sample label and attached to the sleeve:

Building 37 Storm Drain (B37ST) - Remedial Excavation No. (RE#) - Stockpile Chronological Number (SP#)  
e.g., B37ST-RE1-SP2

Sample sleeves were placed in a cooler with blue ice and transported under chain-of-custody to a State-certified laboratory for analysis.

Stockpile samples have been analyzed according to the analytical schedule presented in Table 1.

### 2.1.3 Confirmation Sampling

Confirmation sampling was conducted to ensure that residual surface soil (upper 12 feet) met soil screening criteria at the excavation. Confirmation sampling was conducted at a frequency of at least one sample location each 40 feet along the walls and floor of the excavation.

Generally, soil removal continued at a particular location until the following conditions were met: 1) the headspace VOC reading in freshly exposed soil was less than or equal to 5 ppm, and soil staining was not visible, and odors were not noticeable, or 2) the maximum excavation depth of 12 feet had been reached. A confirmation sample was collected when these conditions were met. Iterations of additional soil excavation were conducted as required until confirmation sample analytical data indicated that *in situ* soil quality met the soil screening criteria established in Section 3.1 of this report, or the maximum excavation depth of 12 feet had been reached.

Confirmation soil samples were collected by first exposing “fresh” soil beneath the surface of a wall and floor of the excavation using a stainless steel utensil or similar device. Soil samples were collected for analysis in pre-cleaned, stainless steel sleeves by driving the sleeve into the soil with a rubber mallet or drive sampler. The ends of the sleeves were then covered with Teflon film and secured with plastic end caps. A unique sample identification using the following nomenclature was written in indelible ink on a sample label and attached to the sleeve:

Building 37 Storm Drain (B37ST) - Grab Sample (GS) - Chronological Number (#) -  
Sample Depth (feet)

e.g., B37ST-GS-10-10'

Sample sleeves were placed in a cooler with blue ice and transported under chain-of-custody to a State-certified laboratory for analysis. Confirmation samples have been analyzed according to the analytical schedule presented in Table 1.

Some confirmation sample locations discussed in this report have been subsequently excavated and data collected from these samples are considered representative of the corresponding stockpile soil quality. Confirmation samples discussed in the Stockpile Soil Quality section of this report (Section 2.3) were those collected through “pot hole” excavations in the vicinity of the railroad spur. These confirmation samples were collected to: (1) assess whether impacted soil was present, and if so, (2) to confirm the depth to clean, native soil.

Using a backhoe, soil was removed from “pot hole” excavations near the railroad spur to the depth where native soil was believed to occur based on PID readings, observations, and odor. Confirmation samples were collected in the soil brought to the surface in the backhoe bucket.

Confirmation soil samples were collected by first exposing "fresh" soil using a stainless steel utensil or similar device. Soil samples were collected for analysis in pre-cleaned, stainless steel sleeves by driving the sleeve into the soil with a rubber mallet or drive sampler. The ends of the sleeves were then covered with Teflon film and secured with plastic end caps.

A unique sample identification using the following nomenclature was written in indelible ink on a sample label and attached to the sleeve:

Railroad Spur (RR) - Grab Sample (GS) - Chronological Number (#) - Sample Depth (feet)  
e.g., RR-GS-13-9'

Sample sleeves were placed in a cooler with blue ice and transported under chain-of-custody to a State-certified laboratory and analyzed according to the analytical schedule presented in Table 1.

## **2.2 SOIL EXCAVATION**

Remedial excavation to remove affected soil was conducted when one of the following conditions was discovered: (1) elevated PID readings greater than 5 ppm in hot spot samples, (2) visible staining, or (3) noticeable odors.

Remedial excavations were performed using heavy equipment (excavators, scrapers, front-end loaders, end-dump trucks) associated with the building demolition effort. Air monitoring in accordance with South Coast Air Quality Management District Rule 1166 was conducted throughout remedial excavation activities.

The maximum depth of remedial excavation B37ST-RE-1 was approximately 12 feet below grade. The locations of the stockpiles are presented in Figure 4.

## **2.3 STOCKPILE SOIL QUALITY**

Soil removal at remedial excavation B37ST-RE-1 was conducted on March 10, 1998.

Approximately 1,180 cubic yards of soil associated with this excavation was removed with an excavator and placed in two stockpiles adjacent north (Stockpile N) and west (Stockpile W) of the excavation as presented in Figure 4.

The following types of samples have been collected and analyzed to evaluate the soil quality in B37ST-RE-1 Stockpiles N and W:

- Excavated hot spot samples
- Stockpile samples
- Excavated confirmation samples

Two hot spot samples were collected at the locations presented in Figure 5; the area around these locations was later excavated. The analytical data for these samples are summarized in Table 2.

Two stockpile samples were collected. The locations of these samples are presented in Figure 4. The analytical data for these samples are summarized in Table 3.

Two confirmation samples were collected at the locations presented in Figure 6; the area around these locations was later excavated. The analytical data for these samples are summarized in Table 4.

A complete set of laboratory analytical reports is presented in Appendix A.

## **2.4 CONFIRMATION SAMPLING**

Ten confirmation samples were collected at locations presented in Figure 7. Analytical data are summarized in Table 5. A complete set of analytical data is presented in Appendix A.

## SECTION 3.0

### DATA SUMMARIES AND CONCLUSIONS

This section presents soil screening criteria and the methodology used throughout the project to evaluate: (1) whether the soil stockpiles were suitable for use as backfill, or required treatment and/or off-site disposal, and (2) whether all affected soil has been removed based on confirmation sample data, or if additional excavation of affected soil is warranted.

#### **3.1 SOIL SCREENING CRITERIA**

The soil screening criteria have been developed to satisfy two primary objectives: (1) residual concentrations in backfill material and surface soil must be below levels projected to impact underlying drinking water sources, and (2) residual concentration in backfill materials and surface soil must be below levels projected to potentially impact human health under future construction and commercial/industrial activities at the Site.

In accordance with these objectives, soil screening criteria were developed for both drinking water and human health protection. The development of these soil screening criteria is discussed below followed by a summary of how these values were implemented.

##### **3.1.1 Drinking Water**

The generalized hydrostratigraphic succession at the Site is as follows (Kennedy/Jenks, 1996; Dames & Moore, 1993; Department of Water Resources, 1961):

SURFACE  
Bellflower Aquitard  
Gage Aquifer  
El Segundo Aquitard  
Lynwood Aquifer

Depth to groundwater at the Site is approximately 65 feet. Hydrostratigraphic information from voluminous data collected at the neighboring Del Amo and Montrose Chemical Superfund Sites can be correlated with subsurface information collected at the Site. Hydrostratigraphic correlations suggest that the shallowest groundwater at the Site occurs in the Bellflower Aquitard, which is not recognized as a drinking water source in the region (Dames & Moore, 1993).

Although the depth to the top of the Gage Aquifer should vary from approximately 120 to 150 feet (from west to east) across the Site, the Gage Aquifer is not utilized as a source of drinking water in the region (Dames & Moore, 1993). Consequently, the shallowest drinking water resource in the region would therefore be the Lynwood Aquifer, projected to occur at the depths of approximately 210 to 240 feet (from west to east) across the Site.

Based on the depth to the first drinking water source, the following permissible concentrations to 12 feet below ground surface have been approved by the RWQCB:

Analytes	Permissible Level
TRPH	
C4 - C12	2,000 mg/kg
C13 - C22	10,000 mg/kg
C22+	50,000 mg/kg
Metals	TTLC and STLC

Notes:

TTLC: Total Threshold Limit Concentration per CCR Title 22.

STLC: Soluble Threshold Limit Concentration per CCR Title 22.

A Waste Extraction Test (WET) is performed on samples with total metal concentration(s) greater than 10 times the STLC but less than the TTLC, per CCR Title 22.

### 3.1.2 Human Health

Site-specific health-based soil screening values were developed by IESI using standard United States Environmental Protection Agency (USEPA) and California Environmental Protection Agency (Cal/EPA) methodologies. These values were derived assuming future commercial industrial land use with an interim construction phase. Each value will be used as a predictor of the risk posed by individual VOC, SVOC, PCB, and metal contaminants in soil. The additive effects of multiple contaminants have been accounted for by setting conservative target risk levels at  $1 \times 10^{-6}$  for carcinogens and 0.2 for toxicants. The final cumulative risks for all residual contaminants at the Site will be addressed in the post-remedial risk assessment. Table 6 summarizes the Site-specific health-based soil screening values to be used at the Site. A more detailed discussion of the methodologies used to derive these values has been presented in the *Health-Based Remediation Goals for Surface Soils* document (IESI, 1997(b)).

### 3.1.3 Evaluation Process

#### EXCAVATED SOIL

Soil excavated at the Site was generally subjected to the soil screening evaluation process depicted in Figure 8. This evaluation process incorporates both drinking water and human health-based criteria. Soils that failed any portion of this test were subjected to treatment

prior to use as backfill, or were disposed of off-site. Once soils passed all aspects of the evaluation procedure, they were used for backfill.

Additionally, metal concentration(s) in stockpiled soils were used to further characterize the waste soil as follows:

- a) Excavated soils were classified as non-RCRA hazardous waste if representative soil samples contained any metal in total concentration equal to or greater than its respective TTLC per CCR Title 22.
- b) Representative soil samples were analyzed for soluble metal concentration using the Waste Extraction Test (WET) if the total concentration of any metal was equal to or greater than 10 times its respective STLC but less than its TTLC per CCR Title 22. Excavated soil was classified as non-RCRA hazardous waste if representative soil samples contained any metal in soluble concentration using the WET equal to or greater than its respective STLC per CCR Title 22.
- c) Additionally, representative soil samples which were analyzed using the WET were also analyzed for soluble metal concentrations using the Toxic Characteristic Leaching Procedure (TCLP). Excavated soil was classified as a RCRA characteristic hazardous waste if the soluble concentration of any metal using the TCLP was equal to or greater than the toxicity characteristic (TC) per CCR Title 22.

### CONFIRMATION SAMPLES

Confirmation soil data at the Site were generally subjected to the soil screening evaluation process depicted in Figure 9. This evaluation process incorporates both drinking water and human health-based criteria. Additional soil excavation and/or treatment was conducted at locations where confirmation sample data failed any portion of this test, and the maximum excavation depth of 12 feet had not been reached.

### **3.2 STOCKPILE EVALUATIONS**

Chemicals of concern at the Site can be summarized as follows:

- Petroleum hydrocarbons
- VOCs
- SVOCs
- PCBs
- Metals

The sampling and analysis program for the remedial excavation discussed in this report was conservatively focused on these chemicals of concern by implementing the following analytical schedule:

- All samples were analyzed for TRPH, metals, VOCs, and SVOCs, with the exception of hot spot sample B37ST-GS-1 which was analyzed for VOCs only.
- All samples which contained TRPH in concentration greater than 10,000 mg/kg were subsequently analyzed for carbon chain length.
- Railroad spur hot spot and confirmation samples were selectively analyzed for carbon chain length, hydrocarbon fuel characterization, and PCBs, based on the potential for occurrence of these chemicals at the sampling location.

Stockpile soil evaluations and dispositions are discussed below and summarized in Table 7.

Soil excavated from remedial excavation B37ST-RE-1 was placed two stockpiles located adjacent north and west of the excavation. Soil samples (hot spot, stockpile, and confirmation) associated with these stockpiles are cross-referenced in Table 7. Analytical data associated with these samples are presented in Table 2, Table 3, and Table 4. These data are summarized and evaluated below.

Petroleum Hydrocarbons: Stockpile sample B37ST-RE1-SP2 (Stockpile N) contained the highest concentration of TRPH (110 mg/kg). This concentration is below the permissible limits for petroleum hydrocarbons and therefore TRPH was not speciated.

VOCs: VOCs were detected in five samples; however, all VOC concentrations were below Site-specific health-based soil screening values.

SVOCs: SVOCs were detected in two samples; however, all SVOC concentrations were below Site-specific health-based soil screening values

PCBs: PCBs were not detected.

Metals: All metal concentrations were below their respective TTLC, 10 times STLC, and Site-specific health-based soil screening values.

**Conclusion:** The data show that Stockpiles N and W met the soil screening criteria established in Section 3.1 of this report and therefore were used as backfill material. The excavated soil was backfilled in remedial excavation B37ST-RE-1.

### 3.3 IN-SITU SOIL QUALITY

The post-remedial excavation confirmation sampling analytical program (see Table 1) was designed to ensure that residual soils (upper 12 feet) meet the soil screening criteria.

Confirmation sample data are presented in Table 5 and can be summarized as follows:

Petroleum hydrocarbons: The maximum concentration of TRPH in a confirmation sample collected from this remedial excavation was 100 mg/kg (sample B37ST-GS-3-4'). This concentration is below the permissible limits for petroleum hydrocarbons and therefore TRPH was not speciated.

VOCs: Trichloroethene was detected in six samples; however, the maximum concentration of trichloroethene detected (0.043 mg/kg in sample B37ST-GS-7-11') is below the Site-specific health-based soil screening value.

SVOCs: Eleven SVOCs were detected in sample B37ST-GS-3-4'; however, all SVOC concentrations were below Site-specific health-based soil screening values.

PCBs: PCBs were not expected to be of concern at this location; therefore, PCBs were not analyzed for.

Metals: The concentration of total chromium in sample B37ST-GS-6-4' exceeded 10 times the STLC. However, this sample did not meet or exceed the STLC when analyzed using the WET, or the TC when analyzed using the TCLP. All other metal concentrations were below their respective TTLC, 10 times STLC, and Site-specific health-based soil screening values.

**Conclusion:** The data show that the residual soils in the B37ST-RE-1 excavation met the soil screening criteria established in Section 3.1 of this report. Accordingly, this remedial excavation was backfilled.

## **SECTION 4.0**

### **REFERENCES**

Department of Water Resources, Southern District, Bulletin 104, Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County, Appendix A, Ground Water Geology, 1961.

Dames & Moore, Phase I Remedial Investigation Report, Del Amo Study Area, Los Angeles, California, October 1993.

Geraghty & Miller, Baseline Risk Assessment, International Light Metals Division Facility, Prepared for Lockheed Martin Corporation, March 1996.

Integrated Environmental Services, Inc., Sampling and Analysis Plan for Demolition Activities at the Douglas Aircraft Company C-6 Facility, 1997(a).

Integrated Environmental Services, Inc., Health-Based Remediation Goals for Surface Soils, 1997(b).

Kennedy/Jenks Consultants, Final Phase II Subsurface Investigation, Douglas Aircraft Company C-6 Facility, Parcel A, Torrance, California, June 5, 1996.

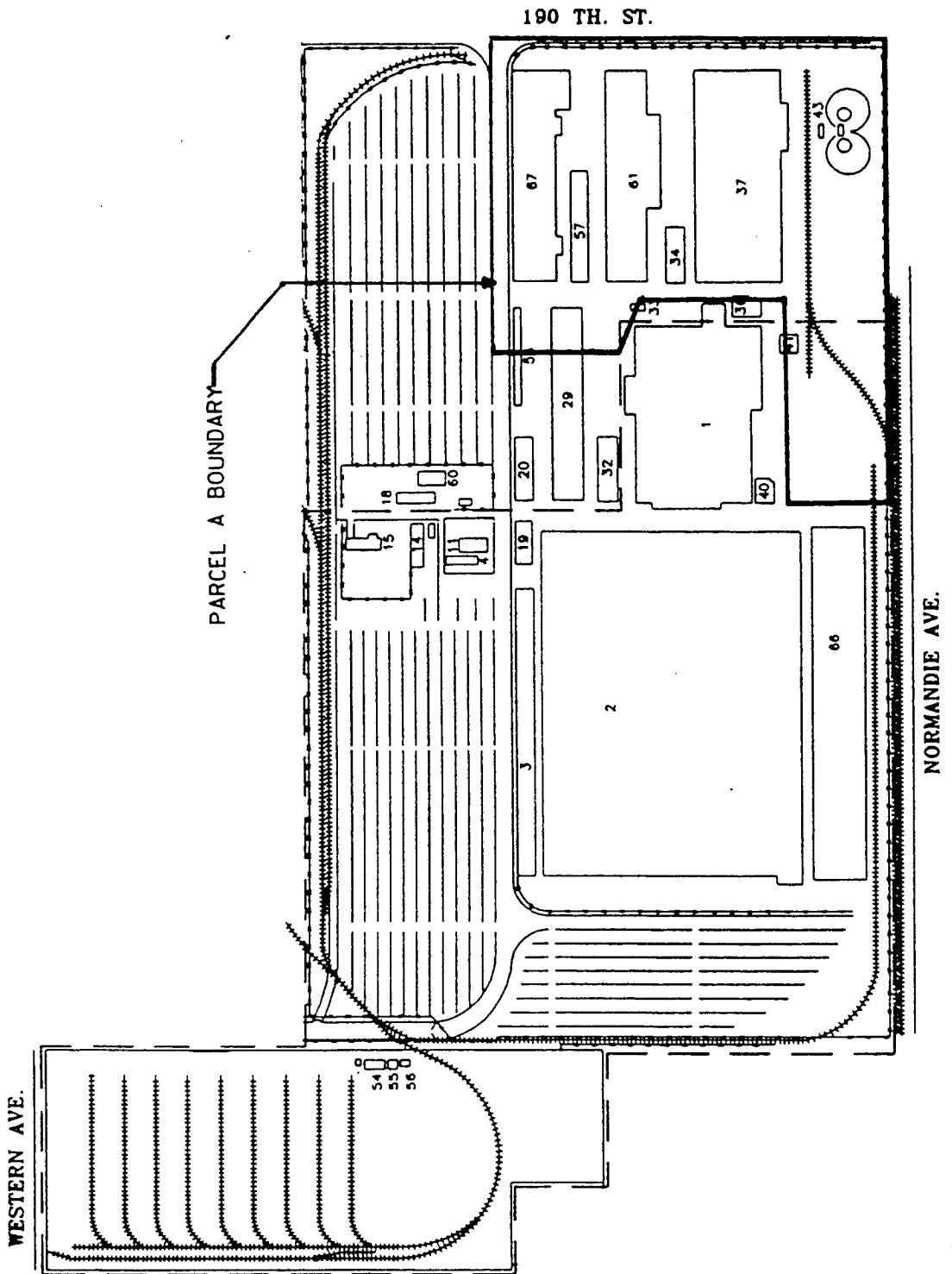
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## Figures

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Approximate Scale: 1' = 600'

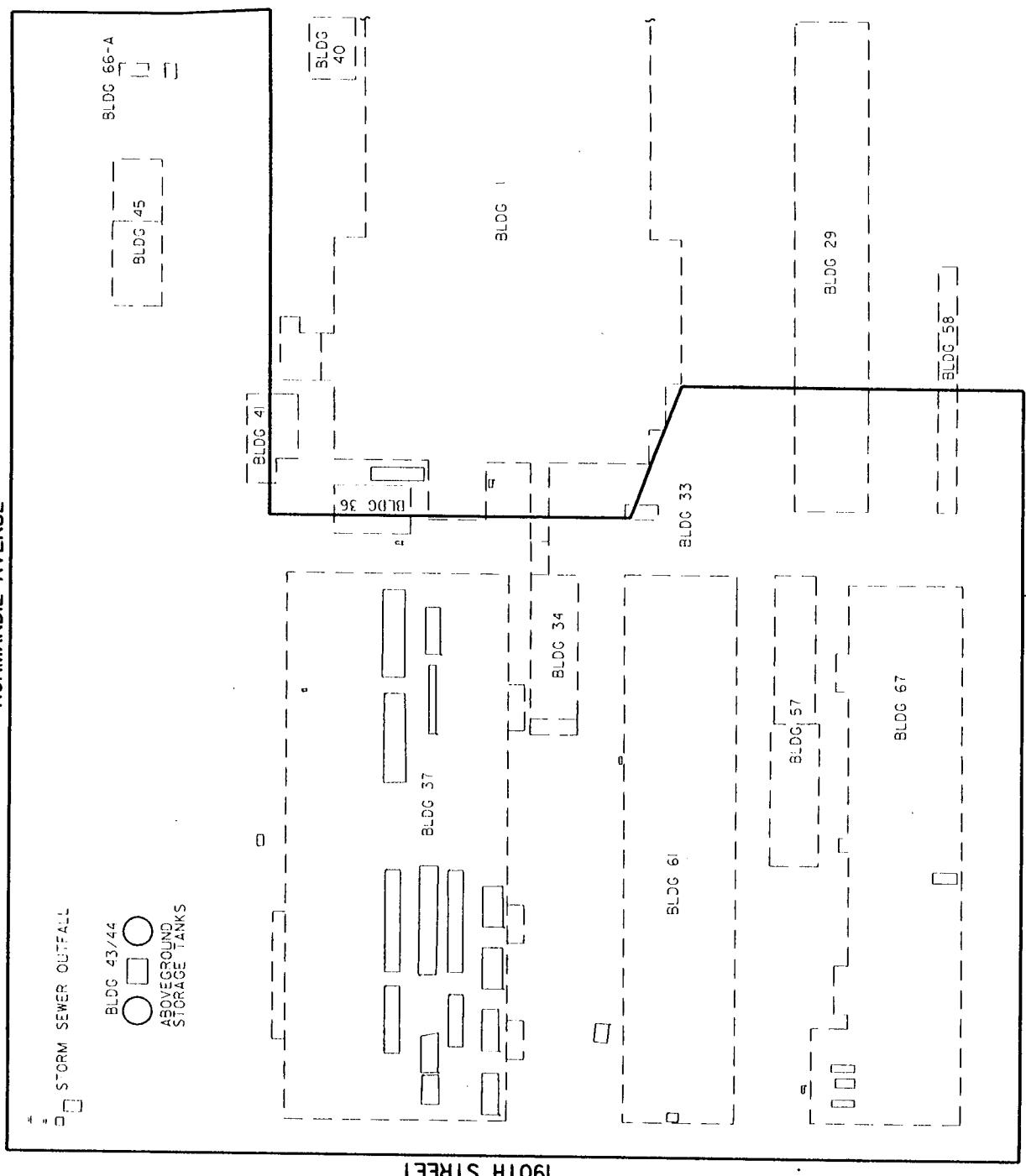


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C-6 FACILITY MAP

FIG. I

## NORMANDIE AVENUE



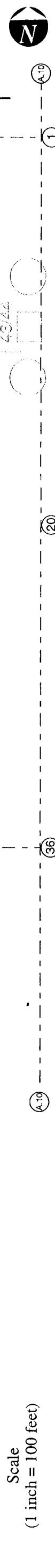
BASE MAP DEVELOPED FROM TAFT & ASSOCIATES INC.  
SURVEY DRAWING DATED 10/22/96.

		BOEING REALTY CORPORATION		SHEET
		PARCEL A		FIG. 2
APPROVED		APPROVED		OF SHEETS
		MONTGOMERY WATSON		
		Pasadena, California		
REV DATE BY	DESCRIPTION	SUBMITTED	PROJECT DIRECTOR	FILE NO.
		DRAWN: N. CHAKIAN	R. C. E. NO. _____ DATE	JOE NO. _____
		RECOMMENDED		
		CHECDED S. REINERS		
		MONTGOMERY WATSON		

**FIGURE 3**

**Remedial Excavation B37ST-RE-1 Location**

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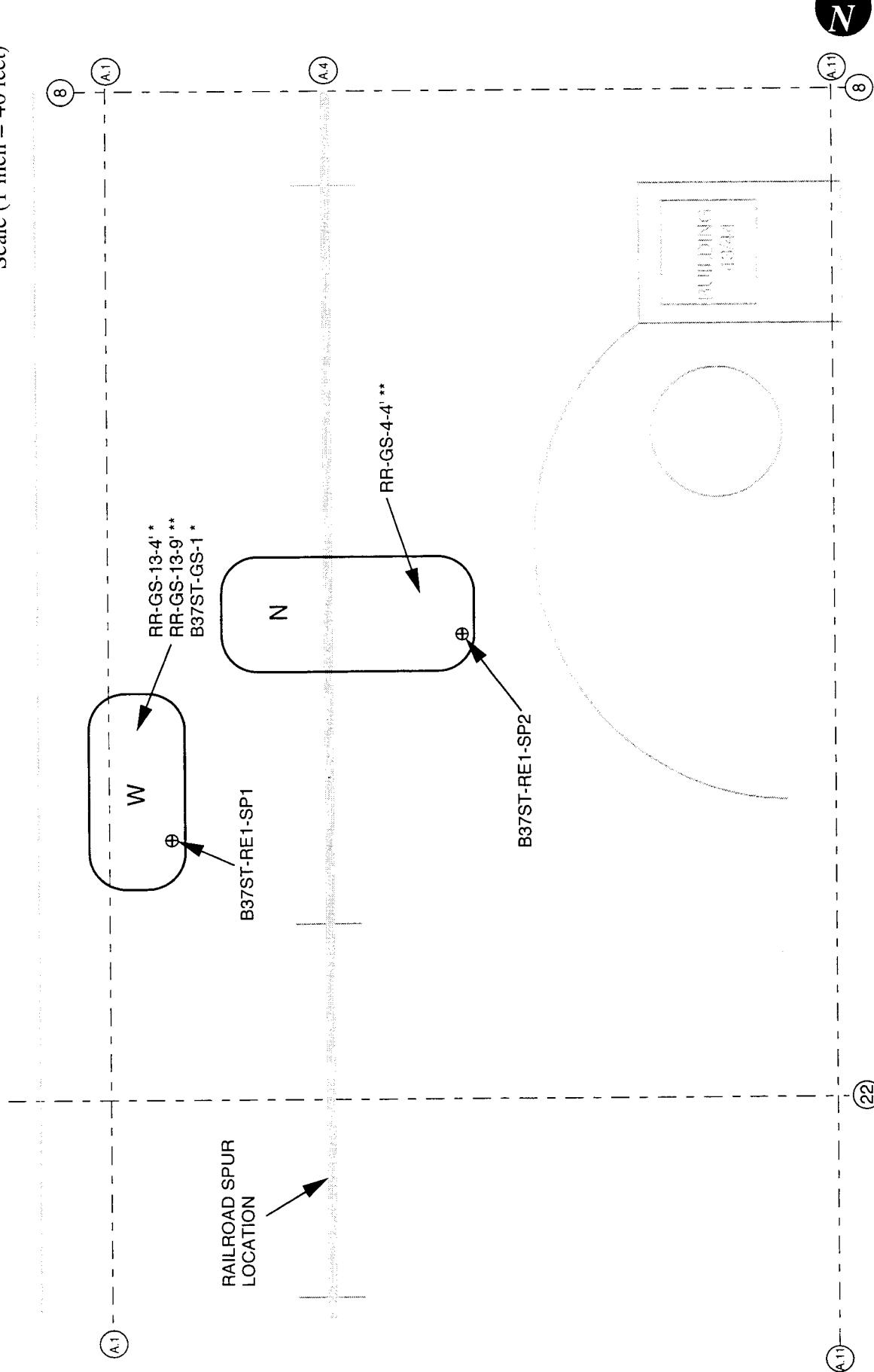


\* See Figure 5 for these Hot Spot Sample Locations

\*\* See Figure 6 for these Confirmation Sample Locations

B37ST-RE1-SP1

Scale (1 inch = 40 feet)

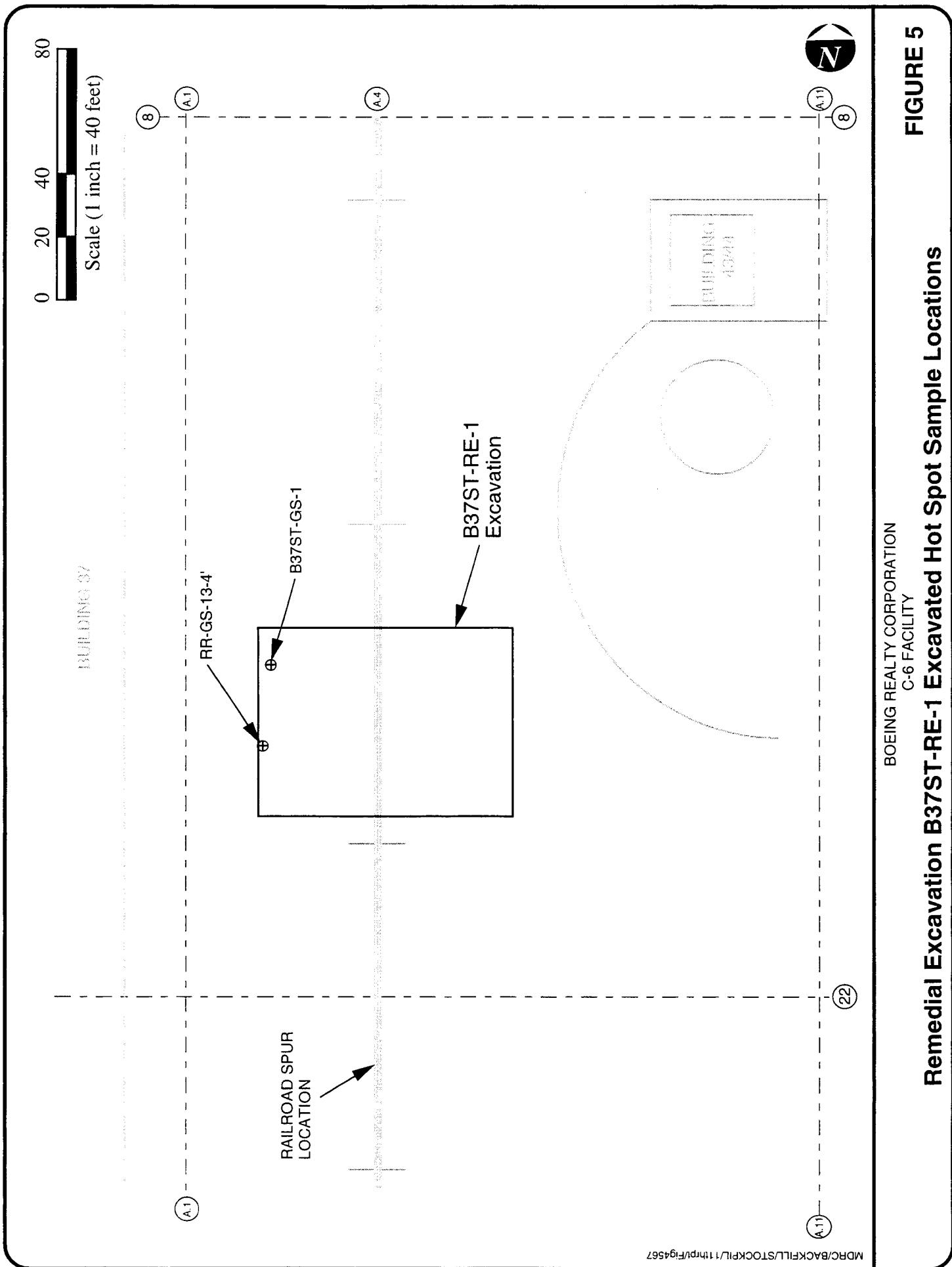


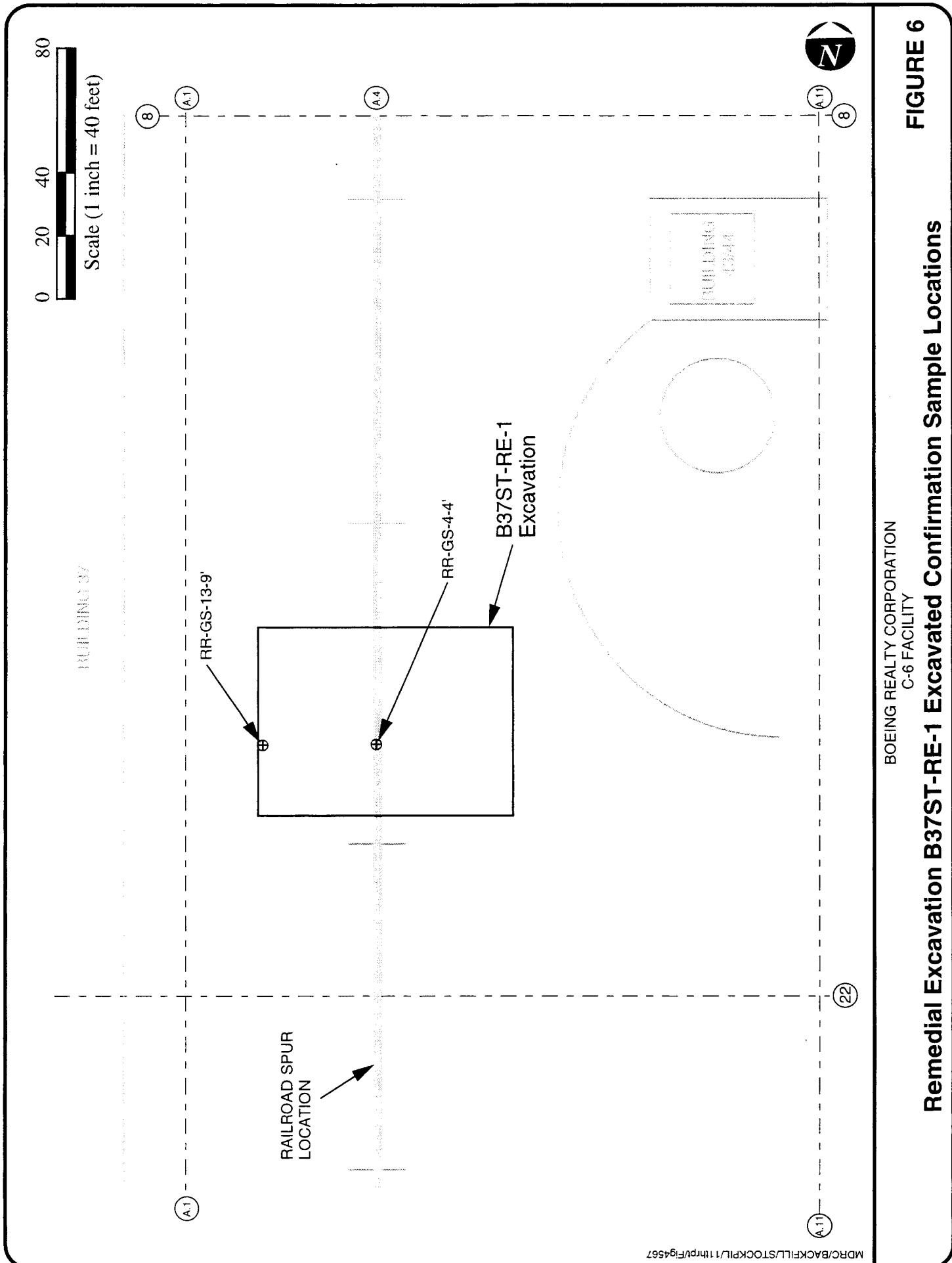
MDC/BACKFILL/STOCKPILE/11thPBFig4567

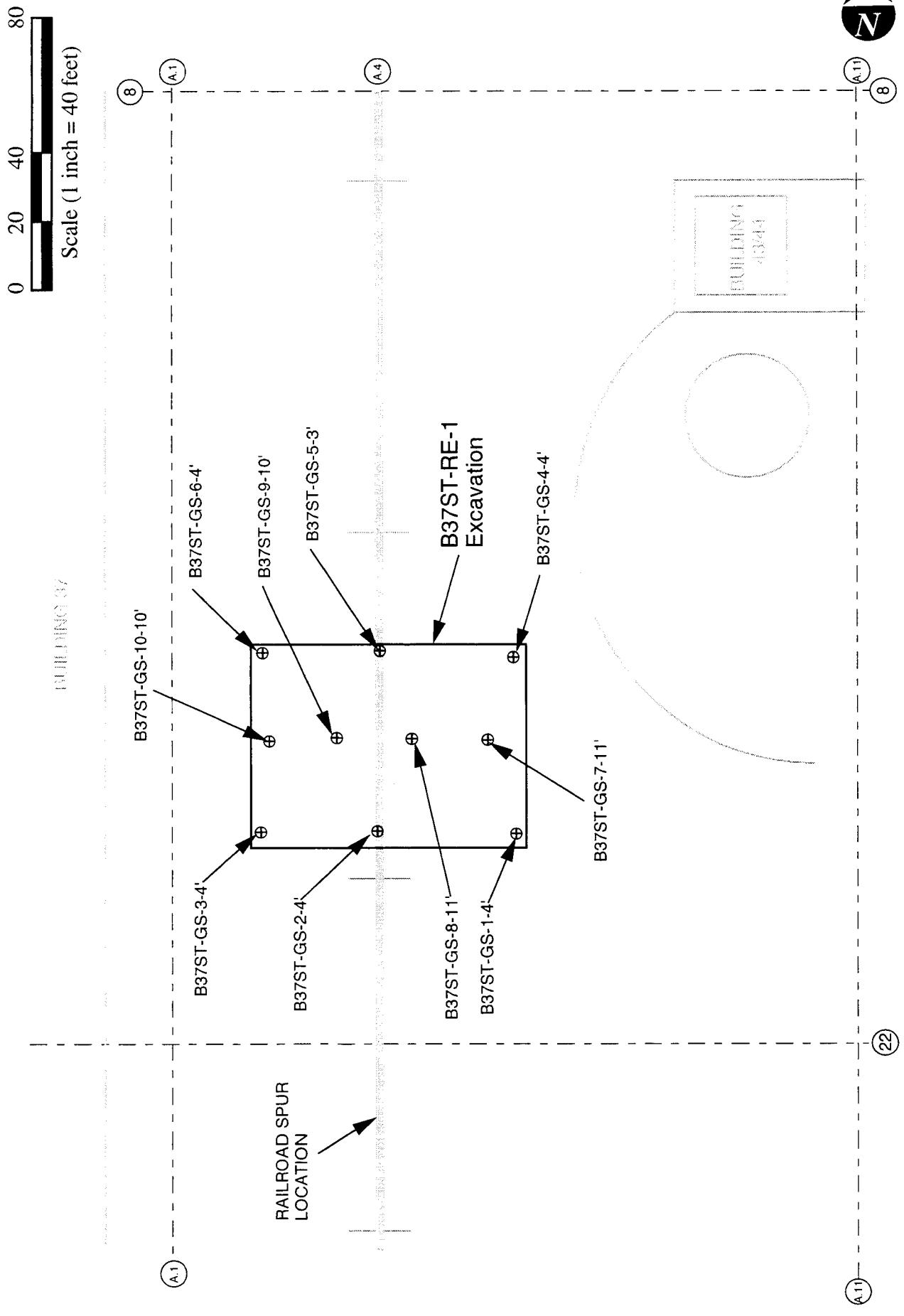
BOEING REALTY CORPORATION  
C-6 FACILITY

## Remedial Excavation B37ST-RE-1 Stockpiles N and W and Sample Locations

FIGURE 4







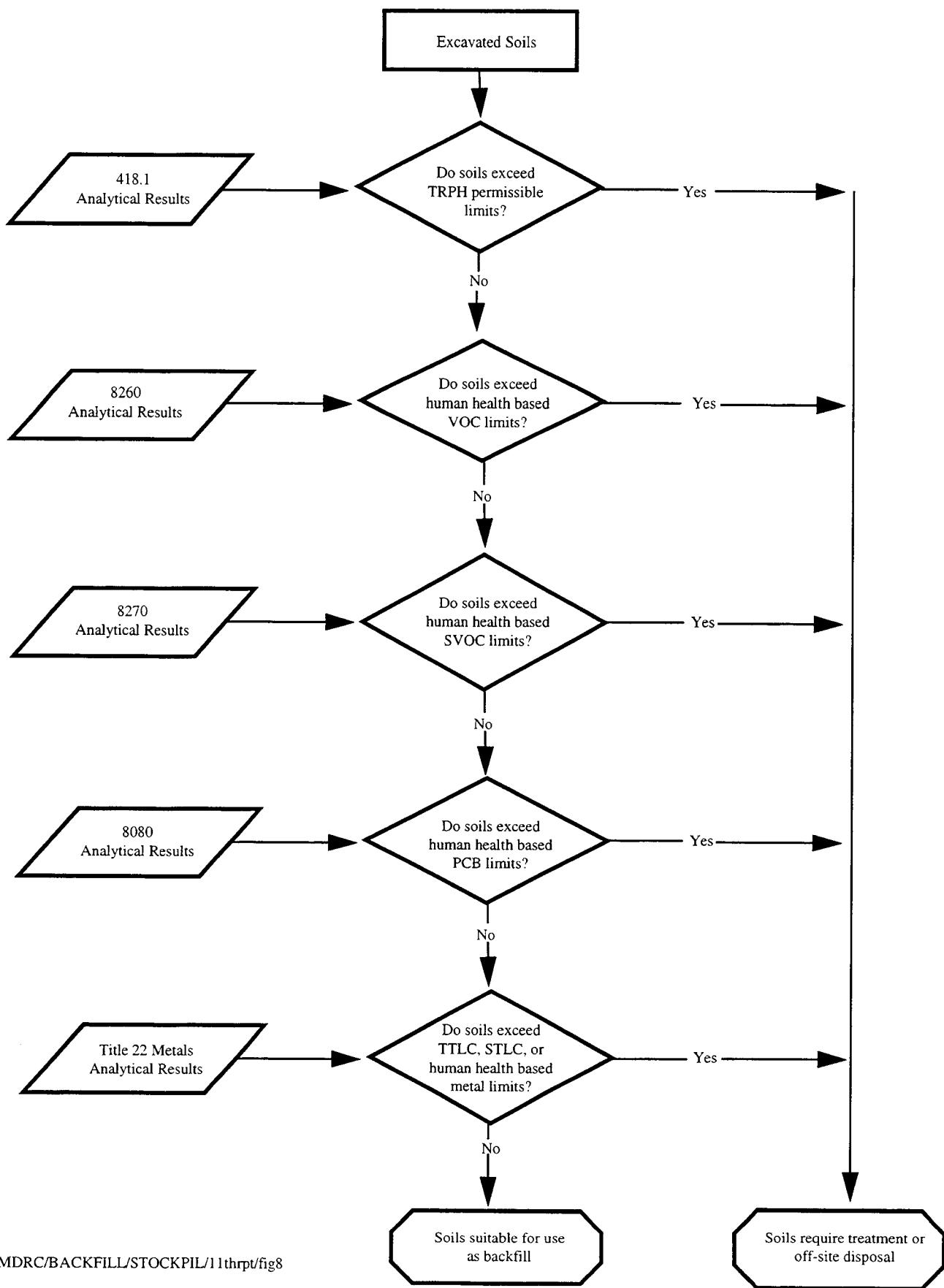
**Remedial Excavation B37ST-RE-1 Confirmation Sample Locations**

BOEING REALTY CORPORATION

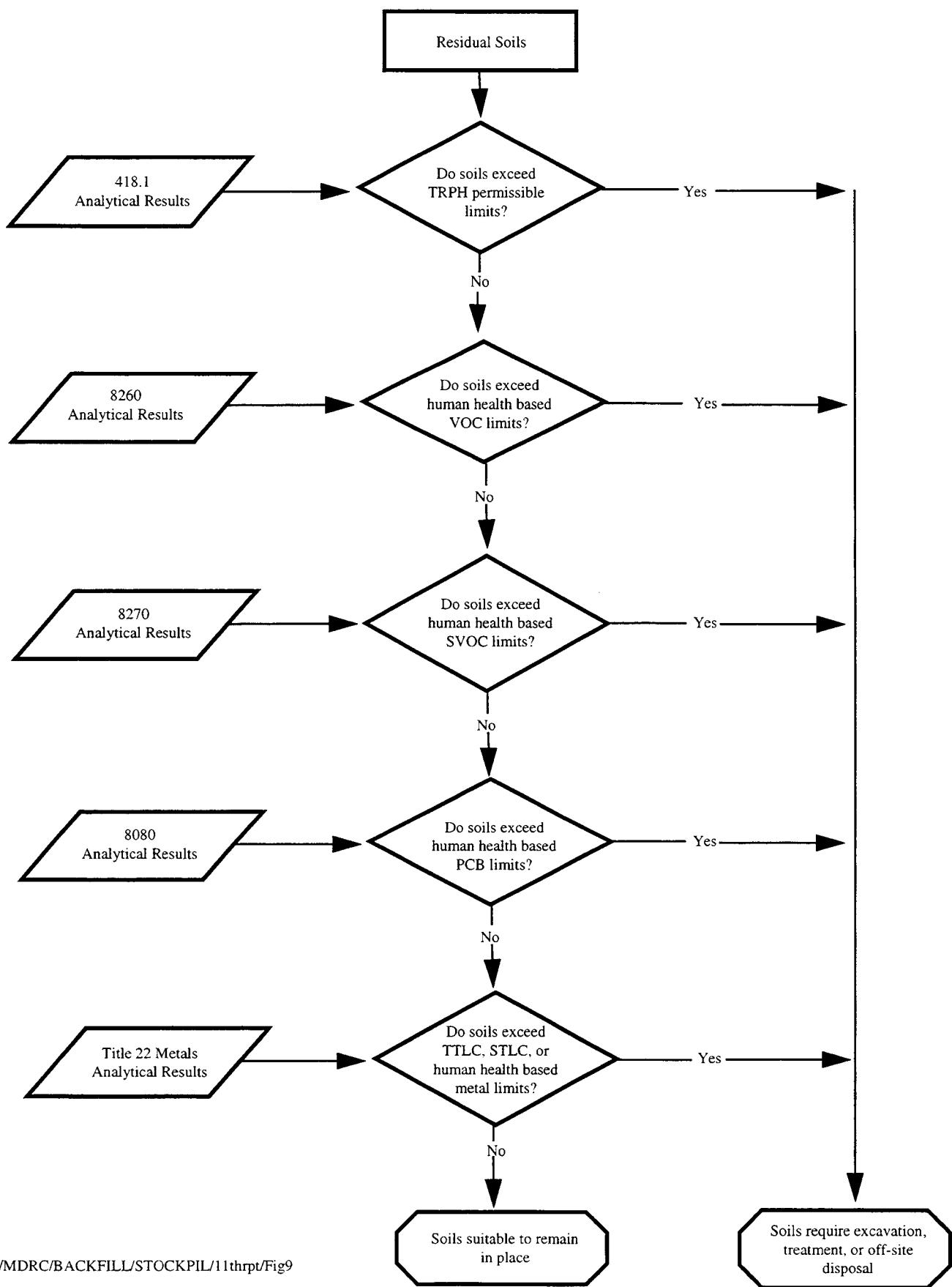
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**FIGURE 7**

**FIGURE 8**  
**Soil Screening Evaluation Process - Excavated Soil**



**FIGURE 9**  
**Soil Screening Evaluation Process - Residual Soil**



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## Tables

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**TABLE 1**  
**Summary of Soil Sample Analytical Methods**

Sample Type	EPA Method	Analyte
Hot Spot Sample	418.1 6000/7000 8260 8270 8080 8015M 8015M	TRPH (b) Metals (b) VOCs SVOCs (b) PCBs (b) Carbon Chain (b) Fuel Characterization (b)
Stockpile Sample	418.1 6000/7000 8260 8270	TRPH (a) Metals VOCs SVOCs
Confirmation Sample	418.1 6000/7000 8260 8270 8080 8015M 8015M	TRPH (a) Metals VOCs SVOCs PCBs (b) Carbon Chain (b) Fuel Characterization (b)

Notes:

TRPH Total Recoverable Petroleum Hydrocarbons

VOCs Volatile Organic Compounds

SVOCs Semi-volatile Organic Compounds.

PCBs Polychlorinated Biphenyls

(a) Samples exhibiting TRPH concentration greater than 10,000 mg/kg were submitted for carbon chain analysis.

(b) Samples were selectively analyzed for these analytes.

**TABLE 2**  
**Analytical Data Summary**  
**Remedial Excavation B37ST-RE-1 Excavated Hot Spot Samples**

Analyte	EPA Method	Sample Number, Collection Date, Grid Location and Depth			Regulatory Levels TTLC (mg/kg)	STLC (mg/L)
		RR-GS-13-4' 6/3/97 A.2-18 @ 4' bgs*	B37ST-GS-1 12/31/97 A.2/A.3-16.5 @ 5' bgs*			
TRPH (mg/kg)	418.1	<8.00		--		
TPHd (mg/kg)	8015M	<8.00		--		
TPHg (mg/kg)	8015M	<5.00		--		
<b>Title 22 Metals (mg/kg)</b>						
Antimony	6010	<5.00		--	500	15
Arsenic	6010	<1.00		--	500	5
Barium	6010	130.00		--	10,000	100
Beryllium	6010	<0.10		--	75	0.75
Cadmium	6010	<0.10		--	100	1
Chromium (VI)	7196	<0.50		--	500	5
Chromium (total)	6010	32.00		--	2,500	5 **
Cobalt	6010	7.70		--	8,000	80
Copper	6010	12.00		--	2,500	25
Lead (total)	6010	<1.00		--	1,000	5
Mercury	7471	<0.01		--	20	0.2
Molybdenum	6010	<0.50		--	3,500	350
Nickel	6010	14.00		--	2,000	20
Selenium	6010	<1.00		--	100	1
Silver	6010	<0.10		--	500	5
Thallium	6010	<5.00		--	700	7
Vanadium	6010	35.00		--	2,400	24
Zinc	6010	36.00		--	5,000	250
<b>VOCs (1) (µg/kg)</b>						
1,1-Dichloroethane	8260	3.70		<2.50		
Naphthalene	8260	<2.50		4.00		
<b>SVOCs (1) (µg/kg)</b>						
Fluoranthene	8270	130.00		--		
<b>Carbon Chain Range (mg/kg)</b>	8015m	ND		--		
<b>PCBs (µg/Kg)</b>	8080	ND		--		

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

mg/L = milligrams per liter

-- = not analyzed

VOCs = Volatile Organic Compounds

PCBs = Polychlorinated biphenyls

ND = not detected

bgs = below ground surface

SVOCs = Semi-volatile Organic Compounds

TRPH = Total Recoverable Petroleum Hydrocarbons

TPHd = Total Petroleum Hydrocarbons as diesel

TPHg = Total Petroleum Hydrocarbons as gasoline

TTLC = California Total Threshold Limit Concentration

STLC = California Soluble Threshold Limit Concentration

(1) VOCs and SVOCs not listed were not detected

\* Refer to Figure 5 for sample locations

\*\* STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

**NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 6 are Reported in mg/kg**

**TABLE 3**  
**Analytical Data Summary**  
**Remedial Excavation B37ST-RE-1 Stockpile Samples\***

Analyte	EPA Method	Sample Number and Collection Date			
		B37ST-RE1-SP1 3/11/98	B37ST-RE1-SP2 3/11/98		
TRPH (mg/kg)	418.1	89.00	110.00		
<b>Title 22 Metals (mg/kg)</b>				<b>Regulatory Levels</b>	
Antimony	6010	<5.00	<5.00	TTLC (mg/kg)	STLC (mg/L)
Arsenic	6010	5.50	3.00	500	5
Barium	6010	130.00	140.00	10,000	100
Beryllium	6010	<0.10	<0.10	75	0.75
Cadmium	6010	<0.10	<0.10	100	1
Chromium (VI)	7196	<0.50	<0.50	500	5
Chromium (total)	6010	23.00	23.00	2,500	5 **
Cobalt	6010	10.00	9.90	8,000	80
Copper	6010	280.00	41.00	2,500	25
Lead (total)	6010	34.00	6.40	1,000	5
Mercury	7471	<0.01	<0.01	20	0.2
Molybdenum	6010	<0.50	<0.50	3,500	350
Nickel	6010	50.00	16.00	2,000	20
Selenium	6010	<1.00	<1.00	100	1
Silver	6010	<0.10	<0.10	500	5
Thallium	6010	<5.00	<5.00	700	7
Vanadium	6010	41.00	41.00	2,400	24
Zinc	6010	82.00	72.00	5,000	250
<b>VOCs (1) (µg/kg)</b>					
tert-Butylbenzene	8260	<2.50	6.20		
n-Butylbenzene	8260	<2.50	5.80		
<b>SVOCs (1) (µg/kg)</b>					
Benzo (a) Anthracene	8270	150.00	<200.00		
Benzo (g,h,i) Perylene	8270	400.00	<500.00		
Benzo (a) Pyrene	8270	300.00	<500.00		
Chrysene	8270	300.00	<200.00		
Fluoranthene	8270	170.00	<200.00		
Pyrene	8270	250.00	<200.00		
<b>Carbon Chain Range (mg/kg)</b>	8015m	--	--		
<b>PCBs (µg/kg)</b>	8080	--	--		

mg/kg = milligrams per kilogram

bgs = below ground surface

µg/kg = micrograms per kilogram

SVOCs = Semi-volatile Organic Compounds

mg/L = milligrams per liter

TRPH = Total Recoverable Petroleum Hydrocarbons

-- = not analyzed

TTLC = California Total Threshold Limit Concentration

VOCs = Volatile Organic Compounds

STLC = California Soluble Threshold Limit Concentration

PCBs = Polychlorinated biphenyls

(1) VOCs and SVOCs not listed were not detected

ND = not detected

\* Refer to Figure 4 for sample locations

\*\* STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

**NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 6 are Reported in mg/kg**

**TABLE 4**  
**Analytical Data Summary**  
**Remedial Excavation B37ST-RE-1 Excavated Confirmation Samples**

Analyte	EPA Method	Sample Number, Collection Date, Grid Location and Depth			Regulatory Levels	
		RR-GS-4-4' 6/2/97 A.4-18 @ 4' bgs*	RR-GS-13-9' 6/3/97 A.2-18 @ 9' bgs*			
TRPH (mg/kg)	418.1	<8.00	<8.00			
TPHd (mg/kg)	8015M	<8.00	<8.00			
TPHg (mg/kg)	8015M	--	<5.00		TTLC (mg/kg)	STLC (mg/L)
<b>Title 22 Metals (mg/kg)</b>						
Antimony	6010	<5.00	<5.00		500	15
Arsenic	6010	<1.00	<1.00		500	5
Barium	6010	110.00	130.00		10,000	100
Beryllium	6010	<0.10	<0.10		75	0.75
Cadmium	6010	<0.10	<0.10		100	1
Chromium (VI)	7196	<0.50	<0.50		500	5
Chromium (total)	6010	26.00	33.00		2,500	5 **
Cobalt	6010	7.30	11.00		8,000	80
Copper	6010	13.00	13.00		2,500	25
Lead (total)	6010	<1.00	<1.00		1,000	5
Mercury	7471	<0.01	<0.01		20	0.2
Molybdenum	6010	<0.50	<0.50		3,500	350
Nickel	6010	12.00	13.00		2,000	20
Selenium	6010	<1.00	<1.00		100	1
Silver	6010	<0.10	<0.10		500	5
Thallium	6010	<5.00	<5.00		700	7
Vanadium	6010	31.00	40.00		2,400	24
Zinc	6010	38.00	67.00		5,000	250
<b>VOCs (1) (µg/kg)</b>						
1,1-Dichloroethane	8260	<2.50	4.60			
1,1-Dichloroethene	8260	7.00	<2.50			
Trichloroethene	8260	<2.50	9.20			
<b>SVOCs (µg/kg)</b>		8270	ND	ND		
<b>Carbon Chain Range (mg/kg)</b>		8015m	--	ND		
<b>PCBs (µg/kg)</b>		8080	ND	ND		

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

mg/L = milligrams per liter

-- = not analyzed

VOCs = Volatile Organic Compounds

PCBs = Polychlorinated biphenyls

ND = not detected

bgs = below ground surface

SVOCs = Semi-volatile Organic Compounds

TRPH = Total Recoverable Petroleum Hydrocarbons

TPHd = Total Petroleum Hydrocarbons as diesel

TPHg = Total Petroleum Hydrocarbons as gasoline

TTLC = California Total Threshold Limit Concentration

STLC = California Soluble Threshold Limit Concentration

(1) VOCs not listed were not detected

\* Refer to Figure 6 for sample locations

\*\* STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

**NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 6 are Reported in mg/kg**

**TABLE 5**  
**Analytical Data Summary**  
**Remedial Excavation B37ST-RE-1 Confirmation Samples**  
**Page 1 of 2**

Analyte	EPA Method	Sample Number, Collection Date, Grid Location and Depth		B37ST-TGS-4-' 3/11/98 A.6-16 @ 4' bgs*	B37ST-TGS-4-' 3/11/98 A.2-19 @ 4' bgs*	B37ST-TGS-5-' 3/11/98 A.4-16 @ 3' bgs*	B37ST-TGS-5-' 3/11/98 A.4-16 @ 3' bgs*
		B37ST-GS-1-' 3/11/98 A.6-19 @ 4' bgs*	B37ST-GS-2-' 3/11/98 A.4-19 @ 4' bgs*				
TRPH (mg/kg)	418.1	<8.00	16.00	100.00	<8.00	<8.00	<8.00
Title 22 Metals (mg/kg)							
Antimony	6010	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Arsenic	6010	<1.00	2.80	5.10	2.60	2.30	500
Barium	6010	140.00	120.00	110.00	110.00	120.00	10,000
Beryllium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	75
Cadmium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	100
Chromium (VI)	7196	<0.50	<0.50	<0.50	<0.50	<0.50	500
Chromium (total)	6010	17.00	20.00	21.00	21.00	20.00	5 ..
Cobalt	6010	9.10	11.00	9.70	9.90	9.40	8,000
Copper	6010	19.00	22.00	21.00	20.00	18.00	2,500
Lead (total)	6010	7.10	4.30	5.80	4.50	5.40	1,000
Mercury	7471	<0.01	<0.01	<0.01	<0.01	<0.01	20
Molybdenum	6010	<0.50	<0.50	<0.50	<0.50	<0.50	3,500
Nickel	6010	10.00	17.00	15.00	15.00	14.00	2,000
Selenium	6010	<1.00	<1.00	<1.00	<1.00	<1.00	100
Silver	6010	<0.10	<0.10	<0.10	<0.10	<0.10	500
Titanium	6010	<5.00	<5.00	<5.00	<5.00	<5.00	7,00
Vanadium	6010	31.00	42.00	41.00	45.00	40.00	2,400
Zinc	6010	66.00	52.00	65.00	51.00	59.00	2,500
SVOCs (1) (µg/kg)							
Trichloroethene	8260	12.00	<2.50	13.00	<2.50	<2.50	<2.50
SVOCs (1) (µg/kg)							
Aceanaphthalene	8270	<100.00	<100.00	340.00	<100.00	<100.00	<100.00
Anthracene	8270	<100.00	<100.00	280.00	<100.00	<100.00	<100.00
Benz (a) Anthracene	8270	<100.00	<100.00	240.00	<100.00	<100.00	<100.00
bis (2-Ethyhexyl)Phthalate	8270	<100.00	<100.00	150.00	<100.00	<100.00	<100.00
Chrysene	8270	<100.00	<100.00	290.00	<100.00	<100.00	<100.00
Fluoranthene	8270	<100.00	<100.00	590.00	<100.00	<100.00	<100.00
Fluorene	8270	<100.00	<100.00	430.00	<100.00	<100.00	<100.00
2-Methylaphthalene	8270	<100.00	<100.00	1,200.00	<100.00	<100.00	<100.00
Naphthalene	8270	<100.00	<100.00	1,800.00	<100.00	<100.00	<100.00
Phenanthrene	8270	<100.00	<100.00	1,300.00	<100.00	<100.00	<100.00
Pyrene	8270	<100.00	<100.00	540.00	<100.00	<100.00	<100.00
Carbon Chain Range (mg/kg)	8015m	--	--	--	--	--	--
PCBs (µg/kg)	8080	--	--	--	--	--	--

mg/kg = milligrams per kilogram  
 µg/kg = micrograms per kilogram  
 mg/L = milligrams per liter  
 -- = not analyzed  
 VOCs = Volatile Organic Compounds

PCBs = Polychlorinated biphenyls  
 ND = not detected  
 bgs = below ground surface  
 SVOCs = Semi-volatile Organic Compounds  
 TPHP = Total Recoverable Petroleum Hydrocarbons

\* Refer to Figure 7 for sample locations  
 \*\* STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 6 are Reported in mg/kg

**TABLE 5**  
**Analytical Data Summary**  
**Remedial Excavation B37ST-RE-1 Confirmation Samples**

Page 2 of 2

Analyte	EPA Method	Sample Number, Collection Date, Grid Location and Depth		B37ST-GS-9-10'		B37ST-GS-9-10'		B37ST-GS-10-10'	
		B37ST-GS-6-4' 3/11/98 A.2-16 @ 4' bgs*	B37ST-GS-7-11' 3/11/98 A.5/A.6-17.5 @ 11' bgs*	B37ST-GS-9-11' 3/11/98 A.4/A.5-17.5 @ 11' bgs*	B37ST-GS-9-11' 3/11/98 A.3/A.4-17.5 @ 10' bgs*	B37ST-GS-10-10' 3/11/98 A.2/A.3-17.5 @ 11' bgs*			
TRPH (mg/kg)	418.1	<8.00	<8.00	<8.00	<8.00	<8.00	<8.00	<8.00	<8.00
<b>Title 22 Metals (mg/kg)</b>									
Antimony									
Arsenic	60/10	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Barium	60/10	3.20	2.00	3.00	3.20	2.90	2.90	5.00	5.00
Beryllium	60/10	120.00	110.00	170.00	140.00	110.00	10.000	100	100
Cadmium	60/10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	7.5	0.75
Chromium (VI)	60/10	<0.10	<0.10	<0.10	<0.10	0.58	<0.10	100	1
Chromium (total)	7196	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	5.00	5
Cobalt	60/10	71.00 (2)[3]	22.00	25.00	34.00	22.00	22.00	2,500	5 **
Copper	60/10	9.70	12.00	13.00	14.00	11.00	8,000	80	80
Lead (total)	60/10	25.00	29.00	28.00	29.00	25.00	25.00	2,500	2,500
Mercury	60/10	17.00	4.90	6.10	6.00	5.20	1,000	5	5
Molybdenum	7191	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	20	0.2
Nickel	60/10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3,500	3,500
Selenium	60/10	16.00	17.00	22.00	22.00	19.00	2,000	2,000	2,000
Silver	60/10	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	100	1
Thallium	60/10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	500	5
Vanadium	60/10	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	700	7
Zinc	60/10	48.00	42.00	48.00	54.00	46.00	46.00	2,400	2,400
		140.00	75.00	84.00	110.00	82.00	82.00	5,000	250
<b>VOCs (1) (ug/kg)</b>									
Trichloroethene									
	8260	<2.50	43.00	8.20	8.20	4.90	4.90	13.00	
<b>SVOCs (1) (ug/kg)</b>									
Acenaphthene									
Anthracene	8270	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00
Benz(a) Anthracene	8270	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00
bis (2-Ethyhexyl)-Phthalate	8270	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00
Chrysene	8270	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00
Fluoranthene	8270	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00
Fluorene	8270	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00
2-Methyl-naphthalene	8270	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00
Naphthalene	8270	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00
Phenanthrene	8270	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00
Pyrene	8270	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00
Carbon Chain Range (mg/kg)	8015m	-	-	-	-	-	-	-	-
PCBs (ug/kg)	8080	-	-	-	-	-	-	-	-

mg/kg = milligrams per kilogram  
 µg/kg = micrograms per kilogram  
 mg/l = milligrams per liter  
 -- = not analyzed  
 VOCs = Semivolatile Organic Compounds  
 TRPH = Total Recoverable Petroleum Hydrocarbons  
 TTLC = California Total Threshold Limit Concentration  
 STLC = California Soluble Threshold Limit Concentration  
 (1) VOCs and SVOCs not listed were not detected  
 (2) Waste Extraction Test performed on this sample. Result was 0.19 mg/L  
 (3) TCLP analysis performed on this sample. Result was <0.10 mg/L

\* Refer to Figure 7 for sample locations

\*\* STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 6 are Reported in mg/kg

**TABLE 6**  
**Site-Specific Health-Based Soil Screening Values for**  
**Organic Constituents Soil Exposure Pathways (mg/kg)**  
**Page 1 of 5**

Constituent	Construction Worker Initial Value	Commercial/ Industrial User Initial Value	Final Value
1-butanol	1.98E+04	3.46E+04	1.98E+04
1,1-dichloroethane	2.23E+03	1.10E+03	1.10E+03
1,1-dichloroethene	1.57E+01	4.21E+00	4.21E+00
1,1,1,2-tetrachloroethane	4.98E+02	1.44E+04	4.98E+02
1,1,2-trichloroethane	2.23E+02	1.26E+03	2.23E+02
1,1,2,2-tetrachloroethane	6.25E+01	1.50E+03	6.25E+01
1,2-dibromo-3-chloropropane	2.42E+00	7.47E+01	2.42E+00
1,2-dibromoethane	4.86E+00	1.84E+02	4.86E+00
1,2-dichlorobenzene	NA	2.64E+06	2.64E+06
1,2-dichloroethane	2.06E+02	2.66E+02	2.06E+02
1,2-dichloropropane	3.37E+01	7.25E+00	7.25E+00
1,2-diphenylhydrazine	2.03E+01	2.36E+08	2.03E+01
1,2,3-trichloropropane	2.39E+00	4.08E+01	2.39E+00
1,2,4-trichlorobenzene	1.74E+02	4.74E+07	1.74E+02
1,3-dichloropropene	4.83E+01	6.63E+02	4.83E+01
1,4-dichlorobenzene	4.32E+02	4.37E+04	4.32E+02
2-butanone	3.28E+04	2.35E+06	3.28E+04
2-chlorophenol	8.57E+02	1.17E+06	8.57E+02
2-methylphenol	8.66E+03	7.59E+07	8.66E+03
2-naphthylamine	9.81E+00	1.63E+06	9.81E+00
2,4-dichlorophenol	5.21E+01	2.22E+07	5.21E+01
2,4-dimethylphenol	3.48E+03	4.37E+08	3.48E+03
2,4-dinitrophenol	3.49E+01	7.14E+09	3.49E+01
2,4-dinitrotoluene	3.48E+01	7.62E+06	3.48E+01
2,4,5-trichlorophenol	1.73E+04	2.21E+08	1.73E+04
2,4,6-trichlorophenol	2.52E+02	1.10E+07	2.52E+02
2,6-dinitrotoluene	2.59E+01	4.51E+05	2.59E+01
3,3-dichlorobenzidine	1.47E+01	7.53E+08	1.47E+01
4-chloroaniline	6.93E+01	6.50E+06	6.93E+01
4-methyl-2-pentanone	1.20E+04	6.84E+05	1.20E+04
4-methylphenol	8.69E+01	4.01E+07	8.69E+01
4,4-ddd	1.03E+02	9.97E+08	1.03E+02
4,4-dde	7.28E+01	2.83E+06	7.28E+01
4,4-ddt	1.22E+01	2.26E+08	1.22E+01
acenaphthene	8.10E+03	1.62E+08	8.10E+03
acetone	1.55E+04	4.37E+05	1.55E+04
acrolein	NA	8.05E+01	8.05E+01
acrylonitrile	1.59E+01	7.65E+01	1.59E+01

**TABLE 6**  
**Site-Specific Health-Based Soil Screening Values for**  
**Organic Constituents Soil Exposure Pathways (mg/kg)**  
**Page 2 of 5**

Constituent	Construction Worker Initial Value	Commercial/ Industrial User Initial Value	Final Value
aldrin	7.32E-01	2.82E+04	7.32E-01
alpha-bhc	3.93E+00	2.32E+05	3.93E+00
aniline	3.10E+03	1.02E+07	3.10E+03
anthracene	4.06E+03	1.37E+10	4.06E+03
aroclor 1016	NA	7.35E+05	7.35E+05
aroclor 1254	8.70E-01	5.69E+05	8.70E-01
benzene	1.43E+02	1.71E+02	1.43E+02
benzidine	3.52E-02	1.55E+02	3.52E-02
benzoic acid	6.96E+04	6.58E+10	6.96E+04
benzo(a)anthracene	1.14E+01	1.13E+09	1.14E+01
benzo(a)pyrene	1.14E+00	9.56E+07	1.14E+00
benzo(b)fluoranthene	1.14E+01	3.19E+08	1.14E+01
benzo(k)fluoranthene	1.14E+01	9.56E+07	1.14E+01
benzyl alcohol	1.73E+04	3.81E+08	1.73E+04
benzyl chloride	1.00E+02	4.03E+03	1.00E+02
beta-bhc	1.38E+01	9.94E+06	1.38E+01
beta-chloronaphthalene	NA	2.32E+07	2.32E+07
bis(2-chloro-1-methylethyl)ether	2.49E+02	2.93E+04	2.49E+02
bis(2-chloroethyl)ether	6.91E+00	6.91E+02	6.91E+00
bis(2-ethylhexyl)phthalate	2.10E+03	3.59E+09	2.10E+03
bromodichloromethane	1.30E+02	2.94E+03	1.30E+02
bromoform	3.34E+02	1.28E+05	3.34E+02
bromomethane	NA	1.15E+02	1.15E+02
carbazole	8.83E+02	6.66E+08	8.83E+02
carbon disulfide	1.43E+03	7.04E+04	1.43E+03
carbon tetrachloride	9.71E+01	1.35E+02	9.71E+01
chlordan	1.04E+00	1.55E+05	1.04E+00
chlorobenzene	NA	2.83E+04	2.83E+04
chloroform	1.49E+02	9.58E+02	1.49E+02
chloromethane	7.43E+02	7.40E+01	7.40E+01
chrysene	1.14E+02	5.06E+10	1.14E+02
cis-1,2-dichloroethene	1.34E+03	7.51E+03	1.34E+03
cumene	3.79E+03	5.73E+04	3.79E+03
dibenzo(a,h)anthracene	3.35E+00	6.34E+11	3.35E+00
dibromochloromethane	1.50E+02	1.54E+02	1.50E+02
dichlorodifluoromethane	2.14E+03	7.01E+02	7.01E+02
dieldrin	1.22E+00	2.33E+04	1.22E+00
diethyl phthalate	1.39E+05	6.03E+09	1.39E+05
di-n-butylphthalate	1.74E+04	4.19E+08	1.74E+04

**TABLE 6**  
**Site-Specific Health-Based Soil Screening Values for**  
**Organic Constituents Soil Exposure Pathways (mg/kg)**  
**Page 3 of 5**

Constituent	Construction Worker Initial Value	Commercial/ Industrial User Initial Value	Final Value
di-n-octylphthalate	3.49E+02	1.80E+10	3.49E+02
endosulfan	1.46E+02	2.14E+08	1.46E+02
endrin	7.33E+00	1.37E+08	7.33E+00
ethyl chloride	1.42E+05	1.57E+06	1.42E+05
ethylbenzene	NA	7.33E+05	7.33E+05
fluoranthene	6.97E+03	3.03E+10	6.97E+03
fluorene	6.94E+03	1.40E+08	6.94E+03
gamma-bhc	2.32E+01	2.63E+05	2.32E+01
heptachlor	2.87E+00	1.78E+03	2.87E+00
heptachlor epoxide	3.14E-01	1.35E+03	3.14E-01
hexachlorobenzene	9.69E+00	2.80E+03	9.69E+00
hexachlorobutadiene	2.24E+02	7.13E+04	2.24E+02
hexachlorocyclopentadiene	8.87E+01	9.79E+02	8.87E+01
hexachloroethane	1.73E+02	2.39E+05	1.73E+02
indeno(1,2,3-cd)pyrene	1.47E+01	1.23E+11	1.47E+01
isobutyl alcohol	4.81E+04	2.55E+06	4.81E+04
isophorone	1.85E+04	2.92E+07	1.85E+04
methoxychlor	8.71E+01	1.48E+09	8.71E+01
methyl methacrylate	1.06E+03	5.56E+04	1.06E+03
methylene bromide	1.51E+03	2.75E+04	1.51E+03
methylene chloride	1.07E+03	1.26E+03	1.07E+03
methyl-tert-butyl ether	NA	1.39E+06	1.39E+06
n-butylbenzyl phthalate	3.48E+03	6.52E+09	3.48E+03
nitroaniline, o-	8.07E+03	2.45E+06	8.07E+03
nitrobenzene	8.61E+01	1.78E+05	8.61E+01
nitrosodiphenylamine, p-	8.02E+02	1.03E+07	8.02E+02
n-nitrosodimethylamine	2.60E-01	1.38E-02	1.38E-02
n-nitroso-di-n-propylamine	2.48E+00	4.46E+02	2.48E+00
n-nitrosodiphenylamine	1.96E+03	4.80E+09	1.96E+03
o-chlorotoluene	3.14E+03	1.05E+05	3.14E+03
p-chloro-m-cresol	3.48E+04	NA	3.48E+04
pentachlorophenol	3.04E+02	3.09E+07	3.04E+02
phenol	1.04E+04	3.14E+09	1.04E+04
pyrene	2.35E+03	4.11E+10	2.35E+03
styrene	3.02E+05	7.58E+06	3.02E+05
tetrachloroethene	3.36E+02	7.52E+03	3.36E+02
toluene	3.12E+04	2.41E+05	3.12E+04
toxaphene	1.47E+01	9.16E+04	1.47E+01
trans-1,2-dichloroethene	2.68E+03	1.47E+04	2.68E+03

**TABLE 6**  
**Site-Specific Health-Based Soil Screening Values for**  
**Organic Constituents Soil Exposure Pathways (mg/kg)**  
**Page 4 of 5**

Constituent	Construction Worker Initial Value	Commercial/ Industrial User Initial Value	Final Value
trichloroethene	1.05E+03	1.39E+03	1.05E+03
trichlorofluoromethane	1.03E+04	4.89E+04	1.03E+04
vinyl acetate	5.41E+03	2.31E+05	5.41E+03
vinyl chloride	5.16E+00	1.81E-01	1.81E-01
xylenes	3.26E+04	2.61E+07	3.26E+04

**TABLE 6**  
**Site-Specific Health-Based Soil Screening Values for**  
**Inorganic Constituents Soil Exposure Pathways (mg/kg)**  
**Page 5 of 5**

Compound	Initial Value	ILM Background*	Final Value
aluminum	NT	3.63E+04	3.63E+04
antimony	9.05E+00	5.00E+00	9.05E+00
arsenic	8.87E+00	1.40E+01	1.40E+01
barium	2.52E+03	2.81E+02	2.52E+03
beryllium	1.56E+01	7.40E-01	1.56E+01
cadmium	1.64E+01	8.80E-01	1.64E+01
calcium	NT	3.80E+04	3.80E+04
chromium iii	3.22E+04	4.10E+01	3.22E+04
chromium vi	9.73E+01	NA	9.73E+01
cobalt	NT	2.00E+01	2.00E+01
copper	1.26E+03	5.30E+01	1.26E+03
cyanide	6.99E+02	NA	6.99E+02
iron	NT	6.05E+04	6.05E+04
lead	NT	1.11E+02	1.11E+02
mercury	6.78E+00	2.80E-01	6.78E+00
molybdenum	1.24E+03	2.30E+01	1.24E+03
nickel	2.39E+02	2.90E+01	2.39E+02
potassium	NT	8.26E+03	8.26E+03
selenium	1.82E+02	1.24E+03	1.24E+03
silver	1.30E+02	2.39E+02	2.39E+02
sodium	NT	1.96E+03	1.96E+03
thallium	NT	1.10E+01	1.10E+01
titanium	NT	1.95E+03	1.95E+03
vanadium	8.37E+01	8.20E+01	8.37E+01
zinc	8.73E+03	1.98E+02	8.73E+03

**NOTES:**

\*ILM background values provided in Baseline Risk Assessment (G&M 1996).

NT = No Toxicity values available for calculation of HBRG

NA = Not Available.

**TABLE 7**  
**Remedial Excavation B37ST-RE-1**  
**Stockpile Soil Disposition Reference**

Stockpile	Sample ID	Screening Criteria Summary*			Soil Location			
		Non-Haz Waste	Non-RCRA Haz Waste	North	East	Backfill Area Boundries	South	West
B37ST-RE1-N	RR-GS-4'4' B37ST-RE1-SP2				16	A.6	19	A.2
B37ST-RE1-W	RR-GS-13-4' RR-GS-13-g' B37ST-GS-1 B37ST-RE1-SP1				16	A.6	19	A.2

\* Blank space denotes soil samples which pass all screening criteria.

X Denotes stockpile disposition based on soil sample failing a screening criterion.

bgs = below ground surface

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## Appendix A

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MONTGOMERY WATSON



# ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067  
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

Montgomery Watson  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

Client Project ID: McDonnell Douglas  
Client Project #: 1206035-01090010

**Analysis Method:** 418.1

**Sampled:** 06-02-97

**Sample Description:** Soil

**Received:** 06-02-97

**Laboratory Reference #:** MWI 9131

**Analyzed:** 06-03-97

**Reported:** 06-03-97

## TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

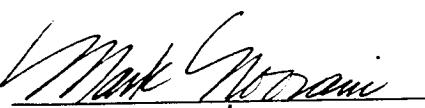
<i>Laboratory Sample Number</i>	<i>Client Sample Number</i>	<i>Sample Result (mg/kg)</i>
97060004	RR-GS-1-4'	N.D.
97060005	RR-GS-2-4'	N.D.
97060006	RR-GS-3-4'	N.D.
97060007	RR-GS-4-4'	N.D.
97060008	RR-GS-5-4'	N.D.
97060009	RR-GS-6-4'	N.D.
97060010	RR-GS-7-4'	N.D.
97060011	RR-GS-8-4'	N.D.
97060012	RR-GS-9-4'	N.D.
97060013	RR-GS-10-4'	N.D.
97060014	RR-GS-11-3.5'	580
97060015	RR-GS-11-7'	3,400
97060016	RR-GS-12-4'	31
97060017	RR-GS-12-12'	4,800

---

Detection Limit: 8.0

Analyte reported as N.D. was not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

  
Mark Noorani  
Laboratory Director



## ORANGE COAST ANALYTICAL, INC.

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4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

### Montgomery Watson

ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Analysis Method:** EPA 3550/8015m

**Sampled:** 06/02/97

**Sample Description:** Soil,

**Received:** 06/02/97

**Laboratory Reference #:** MWI 9131

**Analyzed:** 06/04/97

**Reported:** 6/05-12/1997

### DIESEL ANALYSIS (EPA 8015M)

<b>Laboratory Sample Number</b>	<b>Client Sample Number</b>	<b>Extractable Hydrocarbons (mg/kg)</b>
97060004	RR-GS-1-4'	N.D.
97060005	RR-GS-2-4'	N.D.
97060006	RR-GS-3-4'	N.D.
97060007	RR-GS-4-4'	N.D.
97060008	RR-GS-5-4'	N.D.
97060009	RR-GS-6-4'	N.D.
97060010	RR-GS-7-4'	N.D.
97060011	RR-GS-8-4'	N.D.
97060012	RR-GS-9-4'	N.D.
97060013	RR-GS-10-4'	N.D.
97060014	RR-GS-11-3.5'	1,600
97060015	RR-GS-11-7'	1,400
97060016	RR-GS-12-4'	62
97060017	RR-GS-12-12'	3,700

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**Detection Limit:** 8.0

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Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

**Mark Noorani**  
**Laboratory Director**



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Montgomery Watson  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

Client Project ID: McDonnell Douglas  
Client Project #: 1206035-01090010

Sample Description: Soil, RR-GS-4-4'

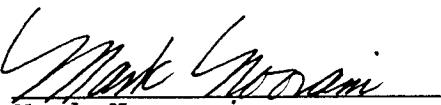
Sampled: 06-02-97  
Received: 06-02-97  
Analyzed: 06-04-97  
Reported: 06-12-97

## CCR - METALS

Analyte	EPA Method	STLC Limits mg/l	TTLC Limits mg/kg	Detection Limit mg/kg	Analysis Result mg/kg
Antimony	6010	15	500	5.0	N.D.
Arsenic	6010	5.0	500	1.0	N.D.
Barium	6010	100	10000	0.1	110 <---
Beryllium	6010	0.75	75	0.1	N.D.
Cadmium	6010	1.0	100	0.1	N.D.
Chromium (VI)	7196	5.0	500	0.5	N.D.
Chromium Total	6010	560	2500	0.05	26 <---
Cobalt	6010	80	8000	0.5	7.3 <---
Copper	6010	25	2500	0.1	13 <---
Lead	6010	5.0	1000	1.0	N.D.
Mercury	7471	0.2	20	0.01	N.D.
Molybdenum	6010	350	3500	0.5	N.D.
Nickel	6010	20	2000	0.5	12 <---
Selenium	6010	1.0	100	1.0	N.D.
Silver	6010	5.0	500	0.1	N.D.
Thallium	6010	7.0	700	5.0	N.D.
Vanadium	6010	24	2400	0.5	31 <---
Zinc	6010	250	5000	0.1	38 <---

Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

  
Mark Noorani  
Laboratory Director



# ORANGE COAST ANALYTICAL, INC.

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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035-01090010

**Sample Description:** Soil, RR-GS-4-4  
**Laboratory Sample Number:** 97060007  
**Laboratory Reference #:** MWI 9131

**Sampled:** 06-02-97  
**Received:** 06-02-97  
**Analyzed:** 06-06-97  
**Reported:** 06-12-97

## Volatile Organics by GC/MS (EPA 8260)

ANALYTE	CAS NUMBER	DETECTION LIMIT (ug/kg)	SAMPLE RESULT (ug/kg)
Benzene	71-43-2	2.5	N.D.
Bromodichloromethane	75-27-4	2.5	N.D.
Bromoform	75-25-2	2.5	N.D.
Bromomethane	74-83-9	2.5	N.D.
Carbon Disulfide	75-15-0	5.0	N.D.
Carbon tetrachloride	56-23-5	2.5	N.D.
Chlorobenzene	108-90-7	2.5	N.D.
Chlorodibromomethane	124-48-1	2.5	N.D.
Chloroethane	75-00-3	2.5	N.D.
2-Chloroethyl vinyl ether	110-75-8	5.0	N.D.
Chloroform	67-66-3	2.5	N.D.
Chloromethane	74-87-3	2.5	N.D.
1,1-Dichloroethane	75-35-3	2.5	N.D.
1,2-Dichloroethane	107-06-2	2.5	N.D.
1,1-Dichloroethene	75-35-4	2.5	7.0 <---
Trans 1,2-Dichloroethene	156-60-5	2.5	N.D.
1,2-Dichloropropane	78-87-5	2.5	N.D.
cis-1,3-Dichloropropene	10061-01-5	2.5	N.D.
trans-1,3-Dichloropropene	10061-02-6	2.5	N.D.
Ethylbenzene	100-41-4	2.5	N.D.
Methylene chloride	75-09-2	5.0	N.D.
Styrene	100-42-5	2.5	N.D.
1,1,2,2-Tetrachloroethane	79-34-5	2.5	N.D.
Tetrachloroethene	127-18-4	2.5	N.D.
Toluene	108-88-3	2.5	N.D.
1,1,1-Trichloroethane	71-55-6	2.5	N.D.
1,1,2-Trichloroethane	79-00-5	2.5	N.D.
Trichloroethene	79-01-6	2.5	N.D.
Trichlorofluoromethane	75-69-4	5.0	N.D.
Vinyl acetate	108-05-4	5.0	N.D.
Vinyl chloride	75-01-4	2.5	N.D.
Total Xylenes	1330-20-7	2.5	N.D.
Dichlorofluoromethane	75-71-8	2.5	N.D.
cis-1,2,-Dichloroethane	156-59-4	2.5	N.D.
2,2-Dichloropropane	590-20-7	2.5	N.D.
Bromochloromethane	74-97-5	2.5	N.D.
1,1-Dichloropropene	563-58-6	2.5	N.D.
1,2-Dichloropropene	78-87-5	2.5	N.D.
Dibromomethane	74-95-3	2.5	N.D.
trans-1,3-Dichloropropene	10061-02-6	2.5	N.D.
1,1,2-Trichloroethane	79-00-5	2.5	N.D.
1,2-Dibromoethane	106-93-4	2.5	N.D.



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Sample Description: Soil, RR-GS-4-4'

Laboratory Sample Number: 97060007

## Volatile Organics by GC/MS (EPA 8260)

ANALYTE	CAS NUMBER	DETECTION LIMIT (ug/kg)	SAMPLE RESULT (ug/kg)
1,3-Dichloropropane	142-28-9	2.5	N.D.
Dibromochloromethane	124-48-1	2.5	N.D.
Isopropylbenzene	98-82-8	2.5	N.D.
1,1,2,2-Tetrachloroethane	79-34-5	2.5	N.D.
1,2,3-Trichloropropane	96-18-4	2.5	N.D.
Bromobenzene	108-86-1	2.5	N.D.
n-Propylbenzene	103-65-1	2.5	N.D.
2-Chlorotoluene	95-49-8	2.5	N.D.
1,3,5-Trimethylbenzene	108-67-8	2.5	N.D.
4-Chlorotoluene	106-43-4	2.5	N.D.
tert-Butylbenzene	98-06-6	2.5	N.D.
1,2,4-Trimethylbenzene	95-63-6	2.5	N.D.
sec-Butylbenzene	135-98-8	2.5	N.D.
4-Isopropyltoluene	99-87-6	2.5	N.D.
1,3-Dichlorobenzene	541-73-1	2.5	N.D.
1,4-Dichlorobenzene	106-46-7	2.5	N.D.
n-Butylbenzene	104-51-8	2.5	N.D.
1,2-Dichlorobenzene	95-50-1	2.5	N.D.
1-2-Dibromo-2-CPA	96-12-8	5.0	N.D.
1,2,4-Trichlorobenzene	120-82-1	2.5	N.D.
Hexachlorobutadiene	87-68-3	2.5	N.D.
Naphthalene	91-20-3	2.5	N.D.
1,2,3-Trichlorobenzene	87-61-6	2.5	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

Mark Noorani  
Laboratory Director

Surrogate Recoveries	%
Dibromofluoromethane	98
Toluene-d8	99
4-Bromofluorobenzene	102



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Montgomery Watson  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

Client Project ID: McDonnell Douglas  
Client Project #: 1206035-01090010

Sample Description: Soil, RR-GS-4-4  
Laboratory Sample #: 97060007  
Laboratory Reference #: MWI 9131

Sampled : 06-02-97  
Received: 06-02-97  
Analyzed: 06-04-97  
Reported: 06-12-97

## SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

ANALYTE	CAS NUMBER	DETECTION LIMIT ug/kg	SAMPLE RESULTS ug/kg
Acenaphthene	83-32-9	100	N.D.
Acenaphthylene	208-96-8	100	N.D.
Aniline	62-53-3	100	N.D.
Anthracene	120-12-7	100	N.D.
Benzidine	92-87-5	500	N.D.
Benzoic Acid	65-85-0	250	N.D.
Benzo(a)anthracene	56-55-3	100	N.D.
Benzo(b)fluoranthene	205-99-2	250	N.D.
Benzo(k)fluoranthene	207-08-9	250	N.D.
Benzo(g,h,i)perylene	191-24-2	250	N.D.
Benzo(a)pyrene	50-32-8	250	N.D.
Benzyl alcohol	100-51-6	100	N.D.
Bis(2-chloroethoxy)methane	111-91-1	100	N.D.
Bis(2-chloroethyl)ether	111-44-4	100	N.D.
Bis(2-chloroisopropyl)ether	39638-32-9	100	N.D.
Bis(2-ethylhexyl)phthalate	117-81-7	100	N.D.
4-Bromophenyl phenyl ether	101-55-3	100	N.D.
Butyl benzyl phthalate	85-68-7	100	N.D.
4-Chloroaniline	106-47-8	100	N.D.
2-Chloronaphthalene	91-58-7	100	N.D.
4-Chloro-3-methylphenol	59-50-7	100	N.D.
2-Chlorophenol	95-57-8	100	N.D.
4-Chlorophenyl phenyl ether	7005-72-3	100	N.D.
Chrysene	218-0109	100	N.D.
Dibenz(a,h)anthracene	53-70-3	100	N.D.
Dibenzofuran	132-64-9	100	N.D.
Di-n-butyl phthalate	84-74-2	250	N.D.
1,3-Dichlorobenzene	541-73-1	100	N.D.
1,4-Dichlorobenzene	106-46-7	100	N.D.
1,2-Dichlorobenzene	95-50-1	100	N.D.
3,3'-Dichlorobenzidine	91-94-1	100	N.D.
2,4-Dichlorophenol	120-83-2	100	N.D.
Diethyl phthalate	84-66-2	100	N.D.
2,4-Dimethylphenol	105-67-9	100	N.D.
Dimethyl phthalate	131-11-3	100	N.D.
4,6-Dinitro-2-methylphenol	534-52-1	100	N.D.
2,4-Dinitrophenol	51-28-5	100	N.D.



## ORANGE COAST ANALYTICAL, INC.

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### SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

(continued)

Sample Description: Soil, RR-GS-4-4'  
Laboratory Sample #: 97060007

ANALYTE	CAS NUMBER	DETECTION LIMIT ug/kg	SAMPLE RESULTS ug/kg
2,4-Dinitrotoluene	121-14-2	250	N.D.
2,6-Dinitrotoluene	606-20-2	250	N.D.
Di-n-octyl phthalate	117-84-0	250	N.D.
Fluoranthene	206-44-0	100	N.D.
Fluorene	86-73-7	100	N.D.
Hexachlorobenzene	118-74-1	100	N.D.
Hexachlorobutadiene	87-68-3	100	N.D.
Hexachlorocyclopentadiene	77-47-4	100	N.D.
Hexachloroethane	67-72-1	100	N.D.
Indeno(1,2,3-cd)pyrene	193-39-5	250	N.D.
Isophorone	78-59-1	100	N.D.
2-Methylnaphthalene	91-57-6	100	N.D.
2-Methylphenol	95-48-7	100	N.D.
4-Methylphenol	106-44-5	100	N.D.
Naphthalene	91-20-3	100	N.D.
2-Nitroaniline	88-74-4	250	N.D.
3-Nitroaniline	99-09-2	250	N.D.
4-Nitroaniline	100-01-6	250	N.D.
Nitrobenzene	98-95-3	100	N.D.
2-Nitrophenol	88-75-5	100	N.D.
4-Nitrophenol	100-02-7	100	N.D.
N-Nitrosodiphenylamine	86-30-6	100	N.D.
N-Nitroso-di-n-propylamine	621-64-7	100	N.D.
N-Nitrosodimethylamine	62-75-9	100	N.D.
Pentachlorophenol	87-86-5	250	N.D.
Phenanthrene	85-01-8	100	N.D.
Phenol	108-95-2	100	N.D.
Pyrene	129-00-0	100	N.D.
1,2,4-Trichlorobenzene	120-82-1	100	N.D.
2,4,5-Trichlorophenol	95-95-4	100	N.D.
2,4,6-Trichlorophenol	88-06-2	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

Mark Noorani  
Laboratory Director



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035-01090010

**Sample Description:** Soil, RR-GS-4-4'

**Laboratory Sample Number:** 97060007  
**Laboratory Reference #:** MWI 9131

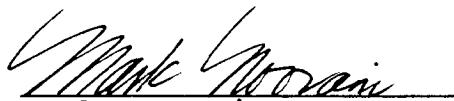
**Sampled:** 06-02-97  
**Received:** 06-02-97  
**Analyzed:** 06-05-97  
**Reported:** 06-12-97

### PCB'S (EPA 8080)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT (ug/kg)</b>	<b>SAMPLE RESULTS (ug/kg)</b>
PCB-1016	12674-11-2	20	N.D.
PCB-1221	11104-28-2	20	N.D.
PCB-1232	11141-16-5	20	N.D.
PCB-1242	53469-21-9	20	N.D.
PCB-1248	12672-29-6	20	N.D.
PCB-1254	11097-69-1	20	N.D.
PCB-1260	11096-82-5	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**ORANGE COAST ANALYTICAL**

  
**Mark Noorani**  
Laboratory Director



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Montgomery Watson  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

Client Project ID: McDonnell Douglas  
Client Project #: 1206035-01090010

Analysis Method: 418.1

Sampled : 06-02-97  
Received: 06-02-97  
Analyzed: 06-09-97  
Reported: 06-12-97

Sample Description: Water

Laboratory Reference #: MWI 9131

### TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Laboratory Sample Number	Client Sample Number	Sample Result (mg/l)
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97060018	Equip Blank	N.D.
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97060019	Rinsate Blank	N.D.
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Detection Limit:	0.5
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Analyte reported as N.D. was not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

  
Mark Noorani  
Laboratory Director



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### Montgomery Watson

ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

*Client Project ID:* McDonnell Douglas  
*Client Project #:* 1206035.01090010

**Analysis Method:** EPA 3510/8015m

**Sample Description:** Water,

*Sampled:* 06/02/97

*Received:* 06/02/97

**Laboratory Reference #:** MWI 9131

*Analyzed:* 06/05/97

*Reported:* 06/12/97

### DIESEL ANALYSIS (EPA 8015M)

<i>Laboratory</i>	<i>Client</i>	<i>Extractable</i>
<i>Sample</i>	<i>Sample</i>	<i>Hydrocarbons</i>
<i>Number</i>	<i>Number</i>	(mg/l)
97060118	Equip Blank	N.D.
97060119	Rinsate Blank	N.D.

---

**Detection Limit:** 0.5

---

Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

*Mark Noorani*  
Laboratory Director



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Sample Description:** Water, Rinsate Blank

**Laboratory Sample Number:** 97060019  
**Laboratory Reference #:** MWI 9131

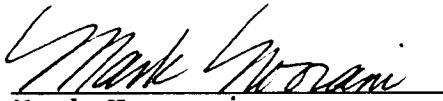
**Sampled:** 06-02-97  
**Received:** 06-02-97  
**Analyzed:** 06-04-97  
**Reported:** 06-12-97

### CCR - METALS

<b>Analyte</b>	<b>EPA Method</b>	<b>Detection Limit</b> mg/l	<b>Analysis Result</b> mg/l
Antimony	6010	0.5	N.D.
Arsenic	6010	0.1	N.D.
Barium	6010	0.01	N.D.
Beryllium	6010	0.01	N.D.
Cadmium	6010	0.01	N.D.
Chromium (VI)	7196	0.01	N.D.
Chromium (Total)	6010	0.01	N.D.
Cobalt	6010	0.05	N.D.
Copper	6010	0.01	N.D.
Lead	6010	0.1	N.D.
Mercury	7471	0.002	N.D.
Molybdenum	6010	0.1	N.D.
Nickel	6010	0.05	N.D.
Selenium	6010	0.1	N.D.
Silver	6010	0.05	N.D.
Thallium	6010	0.5	N.D.
Vanadium	6010	0.1	N.D.
Zinc	6010	0.01	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**ORANGE COAST ANALYTICAL**

  
Mark Noorani  
Laboratory Director



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035-01090010

**Sample Description:** Water, Equip Blank  
**Laboratory Sample Number:** 97060018  
**Laboratory Reference #:** MWI 9131

**Sampled:** 06-02-97  
**Received:** 06-02-97  
**Analyzed:** 06-06-97  
**Reported:** 06-12-97

### Volatile Organics by GC/MS (EPA 8260)

ANALYTE	CAS NUMBER	DETECTION LIMIT (ug/l)	SAMPLE RESULT (ug/l)
Benzene	71-43-2	0.5	N.D.
Bromodichloromethane	75-27-4	0.5	N.D.
Bromoform	75-25-2	0.5	N.D.
Bromomethane	74-83-9	1.0	N.D.
Carbon Disulfide	75-15-0	0.5	N.D.
Carbon tetrachloride	56-23-5	0.5	N.D.
Chlorobenzene	108-90-7	0.5	N.D.
Chlorodibromomethane	124-48-1	0.5	N.D.
Chloroethane	75-00-3	0.5	N.D.
2-Chloroethyl vinyl ether	110-75-8	1.0	N.D.
Chloroform	67-66-3	0.5	N.D.
Chloromethane	74-87-3	0.5	N.D.
1,1-Dichloroethane	75-35-3	0.5	N.D.
1,2-Dichloroethane	107-06-2	0.5	N.D.
1,1-Dichloroethene	75-35-4	0.5	N.D.
Trans 1,2-Dichloroethene	156-60-5	0.5	N.D.
1,2-Dichloropropane	78-87-5	0.5	N.D.
cis-1,3-Dichloropropene	10061-01-5	0.5	N.D.
trans-1,3-Dichloropropene	10061-02-6	0.5	N.D.
Ethylbenzene	100-41-4	0.5	N.D.
Methylene chloride	75-09-2	2.5	N.D.
Styrene	100-42-5	0.5	N.D.
1,1,2,2-Tetrachloroethane	79-34-5	0.5	N.D.
Tetrachloroethene	127-18-4	0.5	N.D.
Toluene	108-88-3	0.5	N.D.
1,1,1-Trichloroethane	71-55-6	0.5	N.D.
1,1,2-Trichloroethane	79-00-5	0.5	N.D.
Trichloroethene	79-01-6	0.5	N.D.
Trichlorofluoromethane	75-69-4	0.5	N.D.
Vinyl acetate	108-05-4	1.0	N.D.
Vinyl chloride	75-01-4	0.5	N.D.
Total Xylenes	1330-20-7	1.0	N.D.
Dichlorofluoromethane	75-71-8	0.5	N.D.
cis-1,2,-Dichloroethane	156-59-4	0.5	N.D.
2,2-Dichloropropane	590-20-7	0.5	N.D.
Bromochloromethane	74-97-5	0.5	N.D.
1,1-Dichloropropene	563-58-6	0.5	N.D.
1,2-Dichloropropane	78-87-5	0.5	N.D.
Dibromomethane	74-95-3	0.5	N.D.
trans-1,3-Dichloropropane	10061-02-6	0.5	N.D.
1,1,2-Trichloroethane	79-00-5	0.5	N.D.
1,2-Dibromoethane	106-93-4	0.5	N.D.



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Avenue  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Analysis Method:**

**Sample Description:** Water

**Sampled :** 06-02-97

**Received:** 06-02-97

**Analyzed:** 06-06-97

**Reported:** 06-12-97

**Laboratory Reference #:** MWI 9131

### VOLATILE FUEL HYDROCARBONS (EPA 8015m)

<b>Laboratory Sample Number</b>	<b>Client Sample Number</b>	<b>Volatile Fuel Hydrocarbons (ug/l) (ppb)</b>
97060018	Equip Blank	N.D.
97060019	Rinsate Blank	N.D.

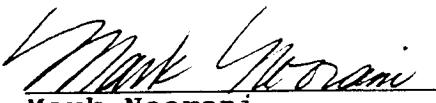
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**Detection Limit:** 50

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Volatile Fuel Hydrocarbons are quantitated against a gasoline standard. Hydrocarbons detected by this method range from C6 to C14. Analytes reported as N.D. were not present above the stated limit of detection.

**ORANGE COAST ANALYTICAL**

  
Mark Noorani  
Laboratory Director



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Sample Description:** Water, Equip Blank

**Laboratory Sample Number:** 97060018  
**Laboratory Reference #:** MWI 9131

**Sampled:** 06-02-97  
**Received:** 06-02-97  
**Analyzed:** 06-04-97  
**Reported:** 06-12-97

### CCR - METALS

<b>Analyte</b>	<b>EPA Method</b>	<b>Detection Limit mg/l</b>	<b>Analysis Result mg/l</b>
Antimony	6010	0.5	N.D.
Arsenic	6010	0.1	N.D.
Barium	6010	0.01	N.D.
Beryllium	6010	0.01	N.D.
Cadmium	6010	0.01	N.D.
Chromium (VI)	7196	0.01	N.D.
Chromium (Total)	6010	0.01	N.D.
Cobalt	6010	0.05	N.D.
Copper	6010	0.01	N.D.
Lead	6010	0.1	N.D.
Mercury	7471	0.002	N.D.
Molybdenum	6010	0.1	N.D.
Nickel	6010	0.05	N.D.
Selenium	6010	0.1	N.D.
Silver	6010	0.05	N.D.
Thallium	6010	0.5	N.D.
Vanadium	6010	0.1	N.D.
Zinc	6010	0.01	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**ORANGE COAST ANALYTICAL**

  
Mark Noorani  
Mark Noorani  
Laboratory Director



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4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

Sample Description: Water, Equip Blank

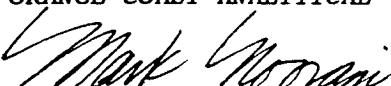
Laboratory Sample Number: 97060018

## Volatile Organics by GC/MS (EPA 8260)

ANALYTE	CAS NUMBER	DETECTION LIMIT (ug/l)	SAMPLE RESULT (ug/l)
1,3-Dichloropropane	142-28-9	0.5	N.D.
Dibromochloromethane	124-48-1	0.5	N.D.
Isopropylbenzene	98-82-8	0.5	N.D.
1,1,2,2-Tetrachloroethane	79-34-5	0.5	N.D.
1,2,3-Trichloropropane	96-18-4	0.5	N.D.
Bromobenzene	108-86-1	0.5	N.D.
n-Propylbenzene	103-65-1	0.5	N.D.
2-Chlorotoluene	95-49-8	0.5	N.D.
1,3,5-Trimethylbenzene	108-67-8	0.5	N.D.
4-Chlorotoluene	106-43-4	0.5	N.D.
tert-Butylbenzene	98-06-6	0.5	N.D.
1,2,4-Trimethylbenzene	95-63-6	0.5	N.D.
sec-Butylbenzene	135-98-8	0.5	N.D.
4-Isopropyltoluene	99-87-6	0.5	N.D.
1,3-Dichlorobenzene	541-73-1	0.5	N.D.
1,4-Dichlorobenzene	106-46-7	0.5	N.D.
n-Butylbenzene	104-51-8	0.5	N.D.
1,2-Dichlorobenzene	95-50-1	0.5	N.D.
1-2-Dibromo-2-CPA	96-12-8	1.0	N.D.
1,2,4-Trichlorobenzene	120-82-1	0.5	N.D.
Hexachlorobutadiene	87-68-3	0.5	N.D.
Naphthalene	91-20-3	0.5	N.D.
1,2,3-Trichlorobenzene	87-61-6	0.5	N.D.

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Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL  
  
Mark Noorani  
Laboratory Director

Surrogate Recoveries	%
Dibromofluoromethane	97
Toluene-d8	99
4-Bromofluorobenzene	100



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035-01090010

**Sample Description:** Water, Rinsate Blank  
**Laboratory Sample Number:** 97060019  
**Laboratory Reference #:** MWI 9131

**Sampled:** 06-02-97  
**Received:** 06-02-97  
**Analyzed:** 06-06-97  
**Reported:** 06-12-97

## Volatile Organics by GC/MS (EPA 8260)

ANALYTE	CAS NUMBER	DETECTION LIMIT (ug/l)	SAMPLE RESULT (ug/l)
Benzene	71-43-2	0.5	N.D.
Bromodichloromethane	75-27-4	0.5	N.D.
Bromoform	75-25-2	0.5	N.D.
Bromomethane	74-83-9	1.0	N.D.
Carbon Disulfide	75-15-0	0.5	N.D.
Carbon tetrachloride	56-23-5	0.5	N.D.
Chlorobenzene	108-90-7	0.5	N.D.
Chlorodibromomethane	124-48-1	0.5	N.D.
Chloroethane	75-00-3	0.5	N.D.
2-Chloroethyl vinyl ether	110-75-8	1.0	N.D.
Chloroform	67-66-3	0.5	N.D.
Chloromethane	74-87-3	0.5	N.D.
1,1-Dichloroethane	75-35-3	0.5	N.D.
1,2-Dichloroethane	107-06-2	0.5	N.D.
1,1-Dichloroethene	75-35-4	0.5	N.D.
Trans 1,2-Dichloroethene	156-60-5	0.5	N.D.
1,2-Dichloropropane	78-87-5	0.5	N.D.
cis-1,3-Dichloropropene	10061-01-5	0.5	N.D.
trans-1,3-Dichloropropene	10061-02-6	0.5	N.D.
Ethylbenzene	100-41-4	0.5	N.D.
Methylene chloride	75-09-2	2.5	N.D.
Styrene	100-42-5	0.5	N.D.
1,1,2,2-Tetrachloroethane	79-34-5	0.5	N.D.
Tetrachloroethene	127-18-4	0.5	N.D.
Toluene	108-88-3	0.5	N.D.
1,1,1-Trichloroethane	71-55-6	0.5	N.D.
1,1,2-Trichloroethane	79-00-5	0.5	N.D.
Trichloroethene	79-01-6	0.5	N.D.
Trichlorofluoromethane	75-69-4	0.5	N.D.
Vinyl acetate	108-05-4	1.0	N.D.
Vinyl chloride	75-01-4	0.5	N.D.
Total Xylenes	1330-20-7	1.0	N.D.
Dichlorofluoromethane	75-71-8	0.5	N.D.
cis-1,2,-Dichloroethane	156-59-4	0.5	N.D.
2,2-Dichloropropane	590-20-7	0.5	N.D.
Bromochloromethane	74-97-5	0.5	N.D.
1,1-Dichloropropene	563-58-6	0.5	N.D.
1,2-Dichloropropane	78-87-5	0.5	N.D.
Dibromomethane	74-95-3	0.5	N.D.
trans-1,3-Dichloropropane	10061-02-6	0.5	N.D.
1,1,2-Trichloroethane	79-00-5	0.5	N.D.
1,2-Dibromoethane	106-93-4	0.5	N.D.



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4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

Sample Description: Water, Rinsate Blank

Laboratory Sample Number: 97060019

## Volatile Organics by GC/MS (EPA 8260)

ANALYTE	CAS NUMBER	DETECTION LIMIT (ug/l)	SAMPLE RESULT (ug/l)
1,3-Dichloropropane	142-28-9	0.5	N.D.
Dibromochloromethane	124-48-1	0.5	N.D.
Isopropylbenzene	98-82-8	0.5	N.D.
1,1,2,2-Tetrachloroethane	79-34-5	0.5	N.D.
1,2,3-Trichloropropane	96-18-4	0.5	N.D.
Bromobenzene	108-86-1	0.5	N.D.
n-Propylbenzene	103-65-1	0.5	N.D.
2-Chlorotoluene	95-49-8	0.5	N.D.
1,3,5-Trimethylbenzene	108-67-8	0.5	N.D.
4-Chlorotoluene	106-43-4	0.5	N.D.
tert-Butylbenzene	98-06-6	0.5	N.D.
1,2,4-Trimethylbenzene	95-63-6	0.5	N.D.
sec-Butylbenzene	135-98-8	0.5	N.D.
4-Isopropyltoluene	99-87-6	0.5	N.D.
1,3-Dichlorobenzene	541-73-1	0.5	N.D.
1,4-Dichlorobenzene	106-46-7	0.5	N.D.
n-Butylbenzene	104-51-8	0.5	N.D.
1,2-Dichlorobenzene	95-50-1	0.5	N.D.
1-2-Dibromo-2-CPA	96-12-8	1.0	N.D.
1,2,4-Trichlorobenzene	120-82-1	0.5	N.D.
Hexachlorobutadiene	87-68-3	0.5	N.D.
Naphthalene	91-20-3	0.5	N.D.
1,2,3-Trichlorobenzene	87-61-6	0.5	N.D.

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Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

Mark Noorani  
Laboratory Director

Surrogate Recoveries

Dibromofluoromethane	96
Toluene-d8	99
4-Bromofluorobenzene	100



# ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067  
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035-01090010

**Sample Description:** Water, Trip Blank  
**Laboratory Sample Number:** 97060020  
**Laboratory Reference #:** MWI 9131

**Sampled:** 06-02-97  
**Received:** 06-02-97  
**Analyzed:** 06-06-97  
**Reported:** 06-12-97

## Volatile Organics by GC/MS (EPA 8260)

ANALYTE	CAS NUMBER	DETECTION LIMIT (ug/l)	SAMPLE RESULT (ug/l)
Benzene	71-43-2	0.5	N.D.
Bromodichloromethane	75-27-4	0.5	N.D.
Bromoform	75-25-2	0.5	N.D.
Bromomethane	74-83-9	1.0	N.D.
Carbon Disulfide	75-15-0	0.5	N.D.
Carbon tetrachloride	56-23-5	0.5	N.D.
Chlorobenzene	108-90-7	0.5	N.D.
Chlorodibromomethane	124-48-1	0.5	N.D.
Chloroethane	75-00-3	0.5	N.D.
2-Chloroethyl vinyl ether	110-75-8	1.0	N.D.
Chloroform	67-66-3	0.5	N.D.
Chloromethane	74-87-3	0.5	N.D.
1,1-Dichloroethane	75-35-3	0.5	N.D.
1,2-Dichloroethane	107-06-2	0.5	N.D.
1,1-Dichloroethene	75-35-4	0.5	N.D.
Trans 1,2-Dichloroethene	156-60-5	0.5	N.D.
1,2-Dichloropropane	78-87-5	0.5	N.D.
cis-1,3-Dichloropropene	10061-01-5	0.5	N.D.
trans-1,3-Dichloropropene	10061-02-6	0.5	N.D.
Ethylbenzene	100-41-4	0.5	N.D.
Methylene chloride	75-09-2	2.5	N.D.
Styrene	100-42-5	0.5	N.D.
1,1,2,2-Tetrachloroethane	79-34-5	0.5	N.D.
Tetrachloroethene	127-18-4	0.5	N.D.
Toluene	108-88-3	0.5	N.D.
1,1,1-Trichloroethane	71-55-6	0.5	N.D.
1,1,2-Trichloroethane	79-00-5	0.5	N.D.
Trichloroethene	79-01-6	0.5	N.D.
Trichlorofluoromethane	75-69-4	0.5	N.D.
Vinyl acetate	108-05-4	1.0	N.D.
Vinyl chloride	75-01-4	0.5	N.D.
Total Xylenes	1330-20-7	1.0	N.D.
Dichlorofluoromethane	75-71-8	0.5	N.D.
cis-1,2-Dichloroethane	156-59-4	0.5	N.D.
2,2-Dichloropropane	590-20-7	0.5	N.D.
Bromochloromethane	74-97-5	0.5	N.D.
1,1-Dichloropropene	563-58-6	0.5	N.D.
1,2-Dichloropropane	78-87-5	0.5	N.D.
Dibromomethane	74-95-3	0.5	N.D.
trans-1,3-Dichloropropane	10061-02-6	0.5	N.D.
1,1,2-Trichloroethane	79-00-5	0.5	N.D.
1,2-Dibromoethane	106-93-4	0.5	N.D.



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4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

Sample Description: Water, Trip Blank

Laboratory Sample Number: 97060020

## Volatile Organics by GC/MS (EPA 8260)

ANALYTE	CAS NUMBER	DETECTION LIMIT (ug/l)	SAMPLE RESULT (ug/l)
1,3-Dichloropropane	142-28-9	0.5	N.D.
Dibromochloromethane	124-48-1	0.5	N.D.
Isopropylbenzene	98-82-8	0.5	N.D.
1,1,2,2-Tetrachloroethane	79-34-5	0.5	N.D.
1,2,3-Trichloropropane	96-18-4	0.5	N.D.
Bromobenzene	108-86-1	0.5	N.D.
n-Propylbenzene	103-65-1	0.5	N.D.
2-Chlorotoluene	95-49-8	0.5	N.D.
1,3,5-Trimethylbenzene	108-67-8	0.5	N.D.
4-Chlorotoluene	106-43-4	0.5	N.D.
tert-Butylbenzene	98-06-6	0.5	N.D.
1,2,4-Trimethylbenzene	95-63-6	0.5	N.D.
sec-Butylbenzene	135-98-8	0.5	N.D.
4-Isopropyltoluene	99-87-6	0.5	N.D.
1,3-Dichlorobenzene	541-73-1	0.5	N.D.
1,4-Dichlorobenzene	106-46-7	0.5	N.D.
n-Butylbenzene	104-51-8	0.5	N.D.
1,2-Dichlorobenzene	95-50-1	0.5	N.D.
1-2-Dibromo-2-CPA	96-12-8	1.0	N.D.
1,2,4-Trichlorobenzene	120-82-1	0.5	N.D.
Hexachlorobutadiene	87-68-3	0.5	N.D.
Naphthalene	91-20-3	0.5	N.D.
1,2,3-Trichlorobenzene	87-61-6	0.5	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

Mark Noorani  
Laboratory Director

Surrogate Recoveries

Dibromofluoromethane	100
Toluene-d8	99
4-Bromofluorobenzene	99



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4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Sample Description:** Water, Equip Blank      **Sampled :** 06-02-97  
**Laboratory Sample #:** 97060018      **Received:** 06-02-97  
**Laboratory Reference #:** MWI 9131      **Analyzed:** 06-04-97  
    **Reported:** 06-12-97

## SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT ug/l</b>	<b>SAMPLE RESULTS ug/l</b>
Acenaphthene	83-32-9	5.0	N.D.
Acenaphthylene	208-96-8	5.0	N.D.
Aniline	62-53-3	5.0	N.D.
Anthracene	120-12-7	5.0	N.D.
Benzidine	92-87-5	5.0	N.D.
Benzoic Acid	65-85-0	50	N.D.
Benzo(a)anthracene	56-55-3	5.0	N.D.
Benzo(b)fluoranthene	205-99-2	25	N.D.
Benzo(k)fluoranthene	207-08-9	25	N.D.
Benzo(g,h,i)perylene	191-24-2	25	N.D.
Benzo(a)pyrene	50-32-8	25	N.D.
Benzyl alcohol	100-51-6	50	N.D.
Bis(2-chloroethoxy)methane	111-91-1	5.0	N.D.
Bis(2-chloroethyl)ether	111-44-4	5.0	N.D.
Bis(2-chloroisopropyl)ether	39638-32-9	5.0	N.D.
Bis(2-ethylhexyl)phthalate	117-81-7	3.0	N.D.
4-Bromophenyl phenyl ether	101-55-3	5.0	N.D.
Butyl benzyl phthalate	85-68-7	5.0	N.D.
4-Chloroaniline	106-47-8	5.0	N.D.
2-Chloronaphthalene	91-58-7	5.0	N.D.
4-Chloro-3-methylphenol	59-50-7	5.0	N.D.
2-Chlorophenol	95-57-8	5.0	N.D.
4-Chlorophenyl phenyl ether	7005-72-3	5.0	N.D.
Chrysene	218-0109	5.0	N.D.
Dibenz(a,h)anthracene	53-70-3	25	N.D.
Dibenzofuran	132-64-9	5.0	N.D.
Di-N-butyl phthalate	84-74-2	5.0	N.D.
1,3-Dichlorobenzene	541-73-1	5.0	N.D.
1,4-Dichlorobenzene	106-46-7	5.0	N.D.
1,2-Dichlorobenzene	95-50-1	5.0	N.D.
3,3-Dichlorobenzidine	91-94-1	5.0	N.D.
2,4-Dichlorophenol	120-83-2	5.0	N.D.
Diethyl phthalate	84-66-2	5.0	N.D.
2,4-Dimethylphenol	105-67-9	5.0	N.D.
Dimethyl phthalate	131-11-3	5.0	N.D.
4,6-Dinitro-2-methylphenol	534-52-1	50	N.D.
2,4-Dinitrophenol	51-28-5	50	N.D.



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### SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

(continued)

Sample Description: Water, Equip Blank  
Laboratory Sample #: 97060018

ANALYTE	CAS NUMBER	DETECTION LIMIT ug/l	SAMPLE RESULTS ug/l
2,4-Dinitrotoluene	121-14-2	5.0	N.D.
2,6-Dinitrotoluene	606-20-2	5.0	N.D.
Di-N-octyl phthalate	117-84-0	25	N.D.
Fluoranthene	206-44-0	5.0	N.D.
Fluorene	86-73-7	5.0	N.D.
Hexachlorobenzene	118-74-1	5.0	N.D.
Hexachlorobutadiene	87-68-3	5.0	N.D.
Hexachlorocyclopentadiene	77-47-4	5.0	N.D.
Hexachloroethane	67-72-1	5.0	N.D.
Indeno(1,2,3-cd)pyrene	193-39-5	25	N.D.
Isophorone	78-59-1	5.0	N.D.
2-Methylnaphthalene	91-57-6	5.0	N.D.
2-Methylphenol	95-48-7	5.0	N.D.
4-Methylphenol	106-44-5	5.0	N.D.
Naphthalene	91-20-3	50	N.D.
2-Nitroaniline	88-74-4	50	N.D.
3-Nitroaniline	99-09-2	50	N.D.
4-Nitroaniline	100-01-6	5.0	N.D.
Nitrobenzene	98-95-3	5.0	N.D.
2-Nitrophenol	88-75-5	5.0	N.D.
4-Nitrophenol	100-02-7	50	N.D.
N-Nitrosodiphenylamine	86-30-6	5.0	N.D.
N-Nitroso-di-N-propylamine	621-64-7	5.0	N.D.
N-Nitrosodimethylamine	62-75-9	5.0	N.D.
Pentachlorophenol	87-86-5	50	N.D.
Phenanthrene	85-01-8	5.0	N.D.
Phenol	108-95-2	5.0	N.D.
Pyrene	129-00-0	5.0	N.D.
1,2,4-Trichlorobenzene	120-82-1	5.0	N.D.
2,4,5-Trichlorophenol	95-95-4	5.0	N.D.
2,4,6-Trichlorophenol	88-06-2	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

Mark Noorani  
Laboratory Director



# ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067  
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Sample Description:** Water, Rinsate Blank      **Sampled :** 06-02-97  
**Laboratory Sample #:** 97060019      **Received:** 06-02-97  
**Laboratory Reference #:** MWI 9131      **Analyzed:** 06-04-97  
    **Reported:** 06-12-97

## SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT ug/l</b>	<b>SAMPLE RESULTS ug/l</b>
Acenaphthene	83-32-9	5.0	N.D.
Acenaphthylene	208-96-8	5.0	N.D.
Aniline	62-53-3	5.0	N.D.
Anthracene	120-12-7	5.0	N.D.
Benzidine	92-87-5	5.0	N.D.
Benzoic Acid	65-85-0	50	N.D.
Benzo(a)anthracene	56-55-3	5.0	N.D.
Benzo(b)fluoranthene	205-99-2	25	N.D.
Benzo(k)fluoranthene	207-08-9	25	N.D.
Benzo(g,h,i)perylene	191-24-2	25	N.D.
Benzo(a)pyrene	50-32-8	25	N.D.
Benzyl alcohol	100-51-6	50	N.D.
Bis(2-chloroethoxy)methane	111-91-1	5.0	N.D.
Bis(2-chloroethyl)ether	111-44-4	5.0	N.D.
Bis(2-chloroisopropyl)ether	39638-32-9	5.0	N.D.
Bis(2-ethylhexyl)phthalate	117-81-7	3.0	N.D.
4-Bromophenyl phenyl ether	101-55-3	5.0	N.D.
Butyl benzyl phthalate	85-68-7	5.0	N.D.
4-Chloroaniline	106-47-8	5.0	N.D.
2-Chloronaphthalene	91-58-7	5.0	N.D.
4-Chloro-3-methylphenol	59-50-7	5.0	N.D.
2-Chlorophenol	95-57-8	5.0	N.D.
4-Chlorophenyl phenyl ether	7005-72-3	5.0	N.D.
Chrysene	218-0109	5.0	N.D.
Dibenz(a,h)anthracene	53-70-3	25	N.D.
Dibenzofuran	132-64-9	5.0	N.D.
Di-N-butyl phthalate	84-74-2	5.0	N.D.
1,3-Dichlorobenzene	541-73-1	5.0	N.D.
1,4-Dichlorobenzene	106-46-7	5.0	N.D.
1,2-Dichlorobenzene	95-50-1	5.0	N.D.
3,3-Dichlorobenzidine	91-94-1	5.0	N.D.
2,4-Dichlorophenol	120-83-2	5.0	N.D.
Diethyl phthalate	84-66-2	5.0	N.D.
2,4-Dimethylphenol	105-67-9	5.0	N.D.
Dimethyl phthalate	131-11-3	5.0	N.D.
4,6-Dinitro-2-methylphenol	534-52-1	50	N.D.
2,4-Dinitrophenol	51-28-5	50	N.D.



## ORANGE COAST ANALYTICAL, INC.

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### SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

(continued)

Sample Description: Water, Rinsate Blank  
Laboratory Sample #: 97060019

ANALYTE	CAS NUMBER	DETECTION LIMIT ug/l	SAMPLE RESULTS ug/l
2,4-Dinitrotoluene	121-14-2	5.0	N.D.
2,6-Dinitrotoluene	606-20-2	5.0	N.D.
Di-N-octyl phthalate	117-84-0	25	N.D.
Fluoranthene	206-44-0	5.0	N.D.
Fluorene	86-73-7	5.0	N.D.
Hexachlorobenzene	118-74-1	5.0	N.D.
Hexachlorobutadiene	87-68-3	5.0	N.D.
Hexachlorocyclopentadiene	77-47-4	5.0	N.D.
Hexachloroethane	67-72-1	5.0	N.D.
Indeno(1,2,3-cd)pyrene	193-39-5	25	N.D.
Isophorone	78-59-1	5.0	N.D.
2-Methylnaphthalene	91-57-6	5.0	N.D.
2-Methylphenol	95-48-7	5.0	N.D.
4-Methylphenol	106-44-5	5.0	N.D.
Naphthalene	91-20-3	50	N.D.
2-Nitroaniline	88-74-4	50	N.D.
3-Nitroaniline	99-09-2	50	N.D.
4-Nitroaniline	100-01-6	5.0	N.D.
Nitrobenzene	98-95-3	5.0	N.D.
2-Nitrophenol	88-75-5	5.0	N.D.
4-Nitrophenol	100-02-7	50	N.D.
N-Nitrosodiphenylamine	86-30-6	5.0	N.D.
N-Nitroso-di-N-propylamine	621-64-7	5.0	N.D.
N-Nitrosodimethylamine	62-75-9	5.0	N.D.
Pentachlorophenol	87-86-5	50	N.D.
Phenanthrene	85-01-8	5.0	N.D.
Phenol	108-95-2	5.0	N.D.
Pyrene	129-00-0	5.0	N.D.
1,2,4-Trichlorobenzene	120-82-1	5.0	N.D.
2,4,5-Trichlorophenol	95-95-4	5.0	N.D.
2,4,6-Trichlorophenol	88-06-2	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

  
\_\_\_\_\_  
Mark Noorani  
Laboratory Director



# ORANGE COAST ANALYTICAL, INC.

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4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Sample Description:** Water, Equip Blank

**Laboratory Sample Number:** 97060018  
**Laboratory Reference #:** MWI 9131

**Sampled:** 06-02-97  
**Received:** 06-02-97  
**Analyzed:** 06-10-97  
**Reported:** 06-12-97

## ORGANOCHLORINE PESTICIDES (EPA 8080)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT (ug/l)</b>	<b>SAMPLE RESULTS (ug/l)</b>
Aldrin	309-00-2	0.1	N.D.
alpha-BHC	319-84-6	0.2	N.D.
beta-BHC	319-85-7	0.2	N.D.
delta-BHC	319-86-8	0.2	N.D.
gamma-BHC (Lindane)	58-89-9	0.2	N.D.
Chlordane	57-74-9	0.2	N.D.
4,4'-DDD	72-54-8	0.5	N.D.
4,4'-DDE	72-55-9	0.1	N.D.
4,4'-DDT	50-29-3	0.1	N.D.
Dieldrin	60-57-1	0.5	N.D.
Endosulfan I	959-98-8	0.5	N.D.
Endosulfan II	33213-65-9	0.5	N.D.
Endosulfan sulfate	1031-07-8	0.5	N.D.
Endrin	72-20-8	0.02	N.D.
Endrin aldehyde	7421-93-4	0.2	N.D.
Heptachlor	76-44-8	0.1	N.D.
Heptachlor epoxide	1024-57-3	0.2	N.D.
Methoxychlor	72-43-5	9.0	N.D.
Toxaphene	8001-35-2	0.5	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

\_\_\_\_\_  
Mark Noorani  
Laboratory Director



# ORANGE COAST ANALYTICAL, INC.

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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Sample Description:** Water, Rinsate Blank

**Laboratory Sample Number:** 97060019  
**Laboratory Reference #:** MWI 9131

**Sampled:** 06-02-97  
**Received:** 06-02-97  
**Analyzed:** 06-10-97  
**Reported:** 06-12-97

## ORGANOCHLORINE PESTICIDES (EPA 8080)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT (ug/l)</b>	<b>SAMPLE RESULTS (ug/l)</b>
Aldrin	309-00-2	0.1	N.D.
alpha-BHC	319-84-6	0.2	N.D.
beta-BHC	319-85-7	0.2	N.D.
delta-BHC	319-86-8	0.2	N.D.
gamma-BHC (Lindane)	58-89-9	0.2	N.D.
Chlordane	57-74-9	0.2	N.D.
4,4'-DDD	72-54-8	0.5	N.D.
4,4'-DDE	72-55-9	0.1	N.D.
4,4'-DDT	50-29-3	0.1	N.D.
Dieldrin	60-57-1	0.5	N.D.
Endosulfan I	959-98-8	0.5	N.D.
Endosulfan II	33213-65-9	0.5	N.D.
Endosulfan sulfate	1031-07-8	0.5	N.D.
Endrin	72-20-8	0.02	N.D.
Endrin aldehyde	7421-93-4	0.2	N.D.
Heptachlor	76-44-8	0.1	N.D.
Heptachlor epoxide	1024-57-3	0.2	N.D.
Methoxychlor	72-43-5	9.0	N.D.
Toxaphene	8001-35-2	0.5	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

  
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**Mark Noorani**  
Laboratory Director



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3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067  
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Sample Description:** Water, Equip Blank

**Laboratory Sample Number:** 97060018  
**Laboratory Reference #:** MWI 9131

**Sampled:** 06-02-97  
**Received:** 06-02-97  
**Analyzed:** 06-10-97  
**Reported:** 06-12-97

### PCB'S (EPA 8080)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT (ug/l)</b>	<b>SAMPLE RESULTS (ug/l)</b>
PCB-1016	12674-11-2	5.0	N.D.
PCB-1221	11104-28-2	5.0	N.D.
PCB-1232	11141-16-5	5.0	N.D.
PCB-1242	53469-21-9	5.0	N.D.
PCB-1248	12672-29-6	5.0	N.D.
PCB-1254	11097-69-1	5.0	N.D.
PCB-1260	11096-82-5	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Laboratory Director



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Sample Description:** Water, Rinsate Blank

**Laboratory Sample Number:** 97060019  
**Laboratory Reference #:** MWI 9131

**Sampled:** 06-02-97  
**Received:** 06-02-97  
**Analyzed:** 06-10-97  
**Reported:** 06-12-97

### PCB'S (EPA 8080)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT (ug/l)</b>	<b>SAMPLE RESULTS (ug/l)</b>
PCB-1016	12674-11-2	5.0	N.D.
PCB-1221	11104-28-2	5.0	N.D.
PCB-1232	11141-16-5	5.0	N.D.
PCB-1242	53469-21-9	5.0	N.D.
PCB-1248	12672-29-6	5.0	N.D.
PCB-1254	11097-69-1	5.0	N.D.
PCB-1260	11096-82-5	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Mark Noorani  
Laboratory Director



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## QC DATA REPORT

Analysis : Metals

Date of Analysis : 06/4/97

Laboratory Sample No : 97060017

Laboratory Reference No : MWI 9131

Analyte	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Antimony	0.0	30.0	29.0	28.0	97	93	4
Arsenic *	0.0	10.0	5.5	5.4	55	54	2
Barium	12.0	10.0	21.0	21.0	90	90	0
Beryllium	0.00	1.00	0.92	0.89	92	89	3
Cadmium	0.00	1.00	0.95	0.95	95	95	0
Chromium (Total )	3.7	5.0	8.0	7.9	86	84	1
Chromium ( VI )	0.00	1.00	0.80	0.86	80	86	7
Cobalt	0.97	1.00	1.85	1.77	88	80	4
Copper	2.30	1.00	3.10	3.10	80	80	0
Lead	0.0	10.0	8.5	8.9	85	89	5
Mercury	0.000	0.020	0.022	0.019	110	95	15
Molybdenum	0.0	10.0	10.1	9.6	101	96	5
Nickel	2.00	5.00	6.70	6.50	94	90	3
Selenium	0.0	10.0	9.2	8.6	92	86	7
Silver	0.0	5.0	4.2	3.9	84	78	7
Thallium	0.0	30.0	27.0	25.0	90	83	8
Vanadium	3.9	5.0	8.0	7.9	82	80	1
Zinc	12.0	5.0	16.0	16.0	80	80	0

### Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: $\{(MS-R1) / SP\} \times 100$
PR2	Percent Recovery Of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD	Relative Percent Difference: $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

Matrix interference \*

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### QC DATA REPORT

Analysis : Metals

Date of Analysis : 06/04/97

Laboratory Sample No : 97050559

Laboratory Reference No : MWI 9131

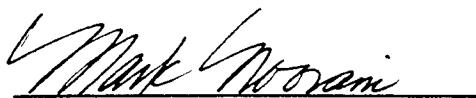
Analyte	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Antimony	0.00	3.00	2.80	3.20	93	107	13
Arsenic	0.00	1.00	1.04	1.09	104	109	5
Barium	0.021	0.100	0.121	0.115	100	94	5
Beryllium	0.00	0.100	0.103	0.098	103	98	5
Cadmium	0.00	0.100	0.119	0.112	119	112	6
Chromium ( VI )	0.00	0.50	0.51	0.48	102	96	6
Chromium (Total)	0.00	0.100	0.097	0.085	97	85	13
Cobalt	0.00	0.100	0.116	0.105	116	105	10
Copper	0.073	0.100	0.168	0.171	95	98	2
Lead	0.00	1.00	1.19	1.19	119	119	0
Mercury	0.000	0.020	0.021	0.020	105	100	5
Molybdenum	0.00	1.00	1.13	1.08	113	108	5
Nickel	0.00	0.50	0.50	0.51	100	102	2
Selenium	0.00	1.00	1.06	1.20	106	120	12
Silver *	0.00	0.50	0.36	0.35	72	70	3
Thallium	0.00	3.00	2.30	2.40	77	80	4
Vanadium	0.16	0.50	0.62	0.64	92	96	3
Zinc	0.039	0.100	0.129	0.137	90	98	6

#### Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: $\{(MS-R1) / SP\} \times 100$
PR2	Percent Recovery Of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD	Relative Percent Difference: $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

Matrix interference \*

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### QC DATA REPORT

Analysis : Chromium ( EPA 6010 )

Date of Analysis : 06/11/97

Laboratory Sample No : 97060014

Laboratory Reference No : MWI 9131

Analyte	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Chromium	0.28	1.00	1.25	1.22	97	94	2

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

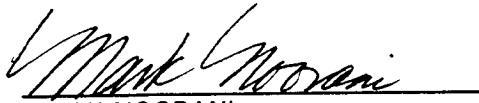
MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Volatile Organics by GC/MS (EPA 8260)

Date of Analysis : 06/06/97

Laboratory Sample No : 97060020

Laboratory Reference No : MWI 9131

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
Benzene	0.0	20	20	19	100	95	5
1,1-Dichloroethene	0.0	20	20	19	100	95	5
Trichloroethene	0.0	20	19	18	95	90	5
Toluene	0.0	20	21	19	105	95	10
Chlorobenzene	0.0	20	19	19	95	95	0

#### Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: $\{(MS-R1) / SP\} \times 100$
PR2	Percent Recovery Of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD	Relative Percent Difference: $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Volatile Organics by GC/MS (EPA 8260)

Date of Analysis : 06/06/97

Laboratory Sample No : 97060004

Laboratory Reference No : MWI 9131

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
Benzene	0.0	50	55	56	110	112	2
1,1-Dichloroethene	0.0	50	55	56	110	112	2
Trichloroethene	0.0	50	53	53	106	106	0
Toluene	0.0	50	56	55	112	110	2
Chlorobenzene	0.0	50	50	52	100	104	4

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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## QC DATA REPORT

Analysis : Volatile Organics by GC/MS (EPA 8260)

Date of Analysis : 06/09/97

Laboratory Sample No : 97060010

Laboratory Reference No : MWI 9131

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
Benzene	0.0	50	48	47	96	94	2
1,1-Dichloroethene	0.0	50	44	42	88	84	5
Trichloroethene	0.0	50	45	46	90	92	2
Toluene	0.0	50	48	48	96	96	0
Chlorobenzene	0.0	50	48	47	96	94	2

### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Semi-Volatile Organics by GC/MS (EPA 8270)

Date of Analysis : 06/04/97

Laboratory Sample No : OCA 100

Laboratory Reference No : MWI 9131

Analyte	R1 (ng)	SP (ng)	MS (ng)	MSD (ng)	PR1 %	PR2 %	RPD %
1,4-Dichlorobenzene	0.0	50	28	30	56	60	7
n-Nitroso-di-n-propylamine	0.0	50	41	45	82	90	9
1,2,4-Trichlorobenzene	0.0	50	31	35	62	70	12
Acenaphthene	0.0	50	43	45	86	90	5
Pyrene	0.0	50	41	43	82	86	5
Pentachlorophenol	0.0	100	70	78	70	78	11
4-Chloro-3-Methylphenol	0.0	100	61	72	61	72	17
2-Chlorophenol	0.0	100	75	80	75	80	6
Phenol	0.0	100	28	31	28	31	10

#### Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: $\{(MS-R1) / SP\} \times 100$
PR2	Percent Recovery Of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD	Relative Percent Difference: $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Semi-Volatile Organics by GC/MS (EPA 8270)

Date of Analysis : 06/04/97

Laboratory Sample No : 97060005

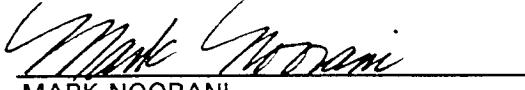
Laboratory Reference No : MWI 9131

Analyte	R1 (ng)	SP (ng)	MS (ng)	MSD (ng)	PR1 %	PR2 %	RPD %
1,4-Dichlorobenzene	0.0	50	44	43	88	86	2
n-Nitroso-di-n-propylamine	0.0	50	43	44	86	88	2
1,2,4-Trichlorobenzene	0.0	50	41	41	82	82	0
Acenaphthene	0.0	50	46	45	92	90	2
Pyrene	0.0	50	44	43	88	86	2
Pentachlorophenol	0.0	100	85	83	85	83	2
4-Chloro-3-Methylphenol	0.0	100	65	66	65	66	2
2-Chlorophenol	0.0	100	79	80	79	80	1
Phenol	0.0	100	69	70	69	70	1

#### Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: $\{(MS-R1) / SP\} \times 100$
PR2	Percent Recovery Of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD	Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Total Recoverable Petroleum Hydrocarbons (EPA 418.1)

Date of Analysis : 06/03/97

Laboratory Sample No : OCA 200

Laboratory Reference No : MWI 9131

Analyte	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Hydrocarbons	0	100	95	96	95	96	1

#### Definition of Terms :

- R1                    Results Of First Analysis  
  
SP                    Spike Concentration Added to Sample  
  
MS                    Matrix Spike Results  
  
MSD                  Matrix Spike Duplicate Results  
  
PR1                  Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$   
  
PR2                  Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$   
  
RPD                  Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Total Recoverable Petroleum Hydrocarbons (EPA 418.1)

Date of Analysis : 06/09/97

Laboratory Sample No : OCA 100

Laboratory Reference No : MWI 9131

Analyte	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Hydrocarbons	0.0	2.5	2.1	2.0	84	80	5

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Extractable Fuel Hydrocarbons ( EPA 8015m)

Date of Analysis : 06/04/97

Laboratory Sample No : OCA 200

Laboratory Reference No : MWI 9131

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
Hydrocarbons	0.0	100	106	111	106	111	5

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Extractable Fuel Hydrocarbons ( EPA 8015m)

Date of Analysis : 06/05/97

Laboratory Sample No : OCA 100

Laboratory Reference No : MWI 9131

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
Hydrocarbons	0.0	5.0	3.0	3.9	60	78	26

#### Definition of Terms :

- R1                   Results Of First Analysis  
SP                   Spike Concentration Added to Sample  
MS                   Matrix Spike Results  
MSD                  Matrix Spike Duplicate Results  
PR1                  Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$   
PR2                  Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$   
RPD                  Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : PCB 'S ( EPA 8080 )

Date of Analysis : 06/05/97

Laboratory Sample No : 97060005

Laboratory Reference No : MWI 9131

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
PCB-1260	0.0	250	200	250	80	100	22

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : PCB 'S ( EPA 8080 )

Date of Analysis : 06/10/97

Laboratory Sample No : OCA 100

Laboratory Reference No : MWI 9131

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
PCB-1260	0.0	20	17	16	85	80	6

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

ORANGE COAST ANALYTICAL

MARK NOORANI  
Laboratory Director



## ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067  
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

### QC DATA REPORT

Analysis : Volatile Fuel Hydrocarbons ( EPA 5030 / 8015m )

Date of Analysis : 06/05/97

Laboratory Sample No : 97050525

Laboratory Reference No : MWI 9131

Analyte	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Hydrocarbons	0	50	53	48	106	96	10

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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Laboratory Director



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### QC DATA REPORT

Analysis : Organochlorine Pesticides (EPA 8080)

Date of Analysis : 06/10/97

Laboratory Sample No : OCA 100

Laboratory Reference No : MWI 9131

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
4,4'-DDT	0.0	1.00	1.00	0.90	100	90	11

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Volatile Fuel Hydrocarbons ( EPA 5030 / 8015m )

Date of Analysis : 06/06/97

Laboratory Sample No : 97060018

Laboratory Reference No : MWI 9131

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
Hydrocarbons	0	250	280	250	112	100	11

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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MARK NOORANI  
Laboratory Director



**ORANGE COAST ANALYTICAL, INC.**  
30002 Dow, Suite 532  
Tustin, CA 92680  
(714) 832-0064, Fax (714) 832-0067

## **Analysis Request and Chain of Custody Record**

Lab Job No: \_\_\_\_\_  
Page \_\_\_\_\_ of \_\_\_\_\_  
**24 hr TAT on Soil TRAP on 1st**  
**Standard TAT Otherwise**  
**REQUIRED**

CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY: Montgomery Watson	PROJECT NAME: Ms. Danielle Douglas	NUMBER: 1206035-0109010	LOCATION: Bldg. 37 Area
SEND REPORT TO: Fred Strauss	ADDRESS: 250 N. Madison Ave.	ADDRESS: 19503 S. Normandie Ave.	
Pasadena, CA 91101			
PHONE: 818-568-6582 FAX: 818-796-5941	SAMPLED BY: Awu/IV/NLM	NO. OF CONTAINERS	SAMPLE DATE
SAMPLE ID			
RR-GS-1-4'	2	6/2/97	1116
RR-GS-2-4'	2		1129
RR-GS-3-4'	2		1140
RR-GS-4-4'	2		1148
RR-GS-5-4'	2		1245
RR-GS-6-4'	2		1255
RR-GS-7-4'	2		1305
RR-GS-8-4'	2		1315
RR-GS-9-4'	2		1327
RR-GS-10-4'	2		1337
RR-GS-11-3.5'	2		1406
RR-GS-11-7'	2		1423
RR-GS-12-4'	2		1440
RR-GS-12-12'	2		1515
Total No. of Samples:	17	Method of Shipment: 2 coolers via Orange Coast Express	
Relinquished By:	Date/Time:	Received By:	Reporting Format: (check)
Tuan Wang	6/2/97 - 1715		NORMAL _____
Relinquished By:	Date/Time:	Received By:	S.D. HMMD _____
			RWQCB _____
Relinquished By:	Date/Time:	Date/Time:	Sample Integrity: (check)
			intact _____ on ice _____

All samples remain the property of the client who is responsible for disposal.<sup>1</sup> A disposal fee may be imposed if client fails to pickup samples.





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4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

Montgomery Watson  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

Client Project ID: McDonnell Douglas  
Client Project #: 1206035-01090010

**Analysis Method:** 418.1

Sampled : 06-03-97  
Received: 06-03-97  
Analyzed: 06-04-97  
Reported: 06-04-97

**Sample Description:** Soil

**Laboratory Reference #:** MWI 9144

### TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

<b>Laboratory Sample Number</b>	<b>Client Sample Number</b>	<b>Sample Result (mg/kg)</b>
97060077	RR-GS-13-4'	N.D.
97060078	RR-GS-13-9'	N.D.
97060079	RR-GS-14-8'	N.D.
97060080	RR-GS-15-8'	N.D.
97060081	RR-GS-16-4'	N.D.
97060082	RR-GS-16-7'	N.D.
97060083	RR-GS-17-6'	N.D.
97060084	RR-GS-18-8'	N.D.
97060085	PL-GS-1-2.5'	16,000
97060086	PL-GS-2-2.5'	15,000
97060087	PL-GS-3-3'	18,000

---

Detection Limit: 8.0

---

Analyte reported as N.D. was not present above the stated limit of detection.

ORANGE COAST ANALYTICAL



Mark Noorani  
Laboratory Director



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Avenue  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Analysis Method:** EPA 3550/8015m

**Sampled :** 06-03-97  
**Received:** 06-03-97  
**Analyzed:** 06-04/06-97  
**Reported:** 06-04/13-97

**Sample Description:** Soil

**Laboratory Reference #:** MWI 9144

### DIESEL ANALYSIS (EPA 8015m)

<b>Laboratory Sample Number</b>	<b>Client Sample Number</b>	<b>Extractable Hydrocarbons (mg/kg)</b>
97060077	RR-GS-13-4'	N.D.
97060078	RR-GS-13-9'	N.D.
97060085	PL-GS-1-2.5'	38,000
97060086	PL-GS-2-2.5'	37,000
97060087	PL-GS-3-3'	28,000

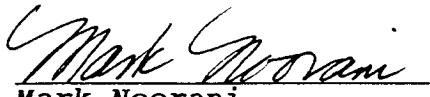
---

**Detection Limit:** 8.0

---

Analytes reported as N.D. were not present above the stated limit of detection.

**ORANGE COAST ANALYTICAL**

  
Mark Noorani  
Mark Noorani  
Laboratory Director



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Avenue  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Analysis Method:** EPA 5030/8015m

**Sampled :** 06-03-97

**Sample Description:** Soil,

**Received:** 06-03-97

**Laboratory Reference #:** MWI 9144

**Analyzed:** 06-04/09-97

**Reported:** 06-04/13-97

### VOLATILE FUEL HYDROCARBONS (EPA 8015m)

<b>Laboratory Sample Number</b>	<b>Client Sample Number</b>	<b>Volatile Fuel Hydrocarbons (mg/kg) (ppm)</b>
97060077	RR-GS-13-4'	N.D.
97060078	RR-GS-13-9'	N.D.
97060085	PL-GS-1-2.5'	100
97060086	PL-GS-2-2.5'	320
97060087	PL-GS-3-3'	47

---

**Detection Limit:** 5.0

Volatile Fuel Hydrocarbons are quantitated against a gasoline standard. Hydrocarbons detected by this method range from C6 to C14. Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

  
Mark Noorani  
Laboratory Director



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035-01090010

**Sample Description:** Soil, RR-GS-13-4'

**Laboratory Sample Number:** 97060077  
**Laboratory Reference #:** MWI 9144

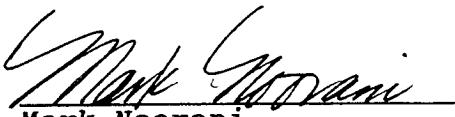
**Sampled:** 06-03-97  
**Received:** 06-03-97  
**Analyzed:** 06-04-97  
**Reported:** 06-13-97

## CCR - METALS

<b>Analyte</b>	<b>EPA Method</b>	<b>STLC Limits mg/l</b>	<b>TTLC Limits mg/kg</b>	<b>Detection Limit mg/kg</b>	<b>Analysis Result mg/kg</b>
Antimony	6010	15	500	5.0	N.D.
Arsenic	6010	5.0	500	1.0	N.D.
Barium	6010	100	10000	0.1	130 <---
Beryllium	6010	0.75	75	0.1	N.D.
Cadmium	6010	1.0	100	0.1	N.D.
Chromium (VI)	7196	5.0	500	0.5	N.D.
Chromium Total	6010	560	2500	0.05	32 <---
Cobalt	6010	80	8000	0.5	7.7 <---
Copper	6010	25	2500	0.1	12 <---
Lead	6010	5.0	1000	1.0	N.D.
Mercury	7471	0.2	20	0.01	N.D.
Molybdenum	6010	350	3500	0.5	N.D.
Nickel	6010	20	2000	0.5	14 <---
Selenium	6010	1.0	100	1.0	N.D.
Silver	6010	5.0	500	0.1	N.D.
Thallium	6010	7.0	700	5.0	N.D.
Vanadium	6010	24	2400	0.5	35 <---
Zinc	6010	250	5000	0.1	36 <---

Analytes reported as N.D. were not present above the stated limit of detection.

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Montgomery Watson  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

Client Project ID: McDonnell Douglas  
Client Project #: 1206035-01090010

Sample Description: Soil, RR-GS-13-9'

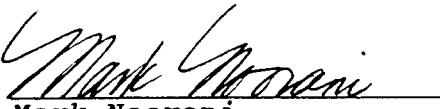
Sampled: 06-03-97  
Received: 06-03-97  
Analyzed: 06-04-97  
Reported: 06-13-97

### CCR - METALS

Analyte	EPA Method	STLC Limits mg/l	TTLC Limits mg/kg	Detection Limit mg/kg	Analysis Result mg/kg
Antimony	6010	15	500	5.0	N.D.
Arsenic	6010	5.0	500	1.0	N.D.
Barium	6010	100	10000	0.1	130 <---
Beryllium	6010	0.75	75	0.1	N.D.
Cadmium	6010	1.0	100	0.1	N.D.
Chromium (VI)	7196	5.0	500	0.5	N.D.
Chromium Total	6010	560	2500	0.05	33 <---
Cobalt	6010	80	8000	0.5	11 <---
Copper	6010	25	2500	0.1	13 <---
Lead	6010	5.0	1000	1.0	N.D.
Mercury	7471	0.2	20	0.01	N.D.
Molybdenum	6010	350	3500	0.5	N.D.
Nickel	6010	20	2000	0.5	13 <---
Selenium	6010	1.0	100	1.0	N.D.
Silver	6010	5.0	500	0.1	N.D.
Thallium	6010	7.0	700	5.0	N.D.
Vanadium	6010	24	2400	0.5	40 <---
Zinc	6010	250	5000	0.1	67 <---

Analytes reported as N.D. were not present above the stated limit of detection.

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Laboratory Director



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035-01090010

**Sample Description:** Soil, RR-GS-13-4'  
**Laboratory Sample Number:** 97060077  
**Laboratory Reference #:** MWI 9144

**Sampled:** 06-03-97  
**Received:** 06-03-97  
**Analyzed:** 06-09-97  
**Reported:** 06-13-97

## Volatile Organics by GC/MS (EPA 8260)

ANALYTE	CAS NUMBER	DETECTION LIMIT (ug/kg)	SAMPLE RESULT (ug/kg)
Benzene	71-43-2	2.5	N.D.
Bromodichloromethane	75-27-4	2.5	N.D.
Bromoform	75-25-2	2.5	N.D.
Bromomethane	74-83-9	2.5	N.D.
Carbon Disulfide	75-15-0	5.0	N.D.
Carbon tetrachloride	56-23-5	2.5	N.D.
Chlorobenzene	108-90-7	2.5	N.D.
Chlorodibromomethane	124-48-1	2.5	N.D.
Chloroethane	75-00-3	2.5	N.D.
2-Chloroethyl vinyl ether	110-75-8	5.0	N.D.
Chloroform	67-66-3	2.5	N.D.
Chloromethane	74-87-3	2.5	N.D.
1,1-Dichloroethane	75-35-3	2.5	3.7 <---
1,2-Dichloroethane	107-06-2	2.5	N.D.
1,1-Dichloroethene	75-35-4	2.5	N.D.
Trans 1,2-Dichloroethene	156-60-5	2.5	N.D.
1,2-Dichloropropane	78-87-5	2.5	N.D.
cis-1,3-Dichloropropene	10061-01-5	2.5	N.D.
trans-1,3-Dichloropropene	10061-02-6	2.5	N.D.
Ethylbenzene	100-41-4	2.5	N.D.
Methylene chloride	75-09-2	5.0	N.D.
Styrene	100-42-5	2.5	N.D.
1,1,2-Tetrachloroethane	79-34-5	2.5	N.D.
Tetrachloroethene	127-18-4	2.5	N.D.
Toluene	108-88-3	2.5	N.D.
1,1,1-Trichloroethane	71-55-6	2.5	N.D.
1,1,2-Trichloroethane	79-00-5	2.5	N.D.
Trichloroethene	79-01-6	2.5	N.D.
Trichlorofluoromethane	75-69-4	5.0	N.D.
Vinyl acetate	108-05-4	5.0	N.D.
Vinyl chloride	75-01-4	2.5	N.D.
Total Xylenes	1330-20-7	2.5	N.D.
Dichlorofluoromethane	75-71-8	2.5	N.D.
cis-1,2,-Dichloroethane	156-59-4	2.5	N.D.
2,2-Dichloropropane	590-20-7	2.5	N.D.
Bromochloromethane	74-97-5	2.5	N.D.
1,1-Dichloropropene	563-58-6	2.5	N.D.
1,2-Dichloropropane	78-87-5	2.5	N.D.
Dibromomethane	74-95-3	2.5	N.D.
trans-1,3-Dichloropropene	10061-02-6	2.5	N.D.
1,1,2-Trichloroethane	79-00-5	2.5	N.D.
1,2-Dibromoethane	106-93-4	2.5	N.D.



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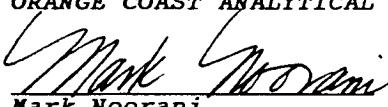
Sample Description: Soil, RR-GS-13-4'

Laboratory Sample Number: 97060077

## Volatile Organics by GC/MS (EPA 8260)

ANALYTE	CAS NUMBER	DETECTION LIMIT (ug/kg)	SAMPLE RESULT (ug/kg)
1,3-Dichloropropane	142-28-9	2.5	N.D.
Dibromochloromethane	124-48-1	2.5	N.D.
Isopropylbenzene	98-82-8	2.5	N.D.
1,1,2,2-Tetrachloroethane	79-34-5	2.5	N.D.
1,2,3-Trichloropropane	96-18-4	2.5	N.D.
Bromobenzene	108-86-1	2.5	N.D.
n-Propylbenzene	103-65-1	2.5	N.D.
2-Chlorotoluene	95-49-8	2.5	N.D.
1,3,5-Trimethylbenzene	108-67-8	2.5	N.D.
4-Chlorotoluene	106-43-4	2.5	N.D.
tert-Butylbenzene	98-06-6	2.5	N.D.
1,2,4-Trimethylbenzene	95-63-6	2.5	N.D.
sec-Butylbenzene	135-98-8	2.5	N.D.
4-Isopropyltoluene	99-87-6	2.5	N.D.
1,3-Dichlorobenzene	541-73-1	2.5	N.D.
1,4-Dichlorobenzene	106-46-7	2.5	N.D.
n-Butylbenzene	104-51-8	2.5	N.D.
1,2-Dichlorobenzene	95-50-1	2.5	N.D.
1-2-Dibromo-2-CPA	96-12-8	5.0	N.D.
1,2,4-Trichlorobenzene	120-82-1	2.5	N.D.
Hexachlorobutadiene	87-68-3	2.5	N.D.
Naphthalene	91-20-3	2.5	N.D.
1,2,3-Trichlorobenzene	87-61-6	2.5	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL  
  
Mark Noorani  
Laboratory Director

Surrogate Recoveries	%
Dibromofluoromethane	100
Toluene-d8	96
4-Bromofluorobenzene	99



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035-01090010

**Sample Description:** Soil, RR-GS-13-9  
**Laboratory Sample Number:** 97060078  
**Laboratory Reference #:** MWI 9144

**Sampled:** 06-03-97  
**Received:** 06-03-97  
**Analyzed:** 06-09-97  
**Reported:** 06-13-97

## Volatile Organics by GC/MS (EPA 8260)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT (ug/kg)</b>	<b>SAMPLE RESULT (ug/kg)</b>
Benzene	71-43-2	2.5	N.D.
Bromodichloromethane	75-27-4	2.5	N.D.
Bromoform	75-25-2	2.5	N.D.
Bromomethane	74-83-9	2.5	N.D.
Carbon Disulfide	75-15-0	5.0	N.D.
Carbon tetrachloride	56-23-5	2.5	N.D.
Chlorobenzene	108-90-7	2.5	N.D.
Chlorodibromomethane	124-48-1	2.5	N.D.
Chloroethane	75-00-3	2.5	N.D.
2-Chloroethyl vinyl ether	110-75-8	5.0	N.D.
Chloroform	67-66-3	2.5	N.D.
Chloromethane	74-87-3	2.5	N.D.
1,1-Dichloroethane	75-35-3	2.5	4.6 <---
1,2-Dichloroethane	107-06-2	2.5	N.D.
1,1-Dichloroethene	75-35-4	2.5	N.D.
Trans 1,2-Dichloroethene	156-60-5	2.5	N.D.
1,2-Dichloropropane	78-87-5	2.5	N.D.
cis-1,3-Dichloropropene	10061-01-5	2.5	N.D.
trans-1,3-Dichloropropene	10061-02-6	2.5	N.D.
Ethylbenzene	100-41-4	2.5	N.D.
Methylene chloride	75-09-2	5.0	N.D.
Styrene	100-42-5	2.5	N.D.
1,1,2,2-Tetrachloroethane	79-34-5	2.5	N.D.
Tetrachloroethene	127-18-4	2.5	N.D.
Toluene	108-88-3	2.5	N.D.
1,1,1-Trichloroethane	71-55-6	2.5	N.D.
1,1,2-Trichloroethane	79-00-5	2.5	N.D.
Trichloroethene	79-01-6	2.5	9.2 <---
Trichlorofluoromethane	75-69-4	5.0	N.D.
Vinyl acetate	108-05-4	5.0	N.D.
Vinyl chloride	75-01-4	2.5	N.D.
Total Xylenes	1330-20-7	2.5	N.D.
Dichlorofluoromethane	75-71-8	2.5	N.D.
cis-1,2,-Dichloroethane	156-59-4	2.5	N.D.
2,2-Dichloropropane	590-20-7	2.5	N.D.
Bromochloromethane	74-97-5	2.5	N.D.
1,1-Dichloropropene	563-58-6	2.5	N.D.
1,2-Dichloropropane	78-87-5	2.5	N.D.
Dibromomethane	74-95-3	2.5	N.D.
trans-1,3-Dichloropropene	10061-02-6	2.5	N.D.
1,1,2-Trichloroethane	79-00-5	2.5	N.D.
1,2-Dibromoethane	106-93-4	2.5	N.D.



# ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067  
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

Sample Description: Soil, RR-GS-13-9'

Laboratory Sample Number: 97060078

## Volatile Organics by GC/MS (EPA 8260)

ANALYTE	CAS NUMBER	DETECTION LIMIT (ug/kg)	SAMPLE RESULT (ug/kg)
1,3-Dichloropropane	142-28-9	2.5	N.D.
Dibromochloromethane	124-48-1	2.5	N.D.
Isopropylbenzene	98-82-8	2.5	N.D.
1,1,2,2-Tetrachloroethane	79-34-5	2.5	N.D.
1,2,3-Trichloropropane	96-18-4	2.5	N.D.
Bromobenzene	108-86-1	2.5	N.D.
n-Propylbenzene	103-65-1	2.5	N.D.
2-Chlorotoluene	95-49-8	2.5	N.D.
1,3,5-Trimethylbenzene	108-67-8	2.5	N.D.
4-Chlorotoluene	106-43-4	2.5	N.D.
tert-Butylbenzene	98-06-6	2.5	N.D.
1,2,4-Trimethylbenzene	95-63-6	2.5	N.D.
sec-Butylbenzene	135-98-8	2.5	N.D.
4-Isopropyltoluene	99-87-6	2.5	N.D.
1,3-Dichlorobenzene	541-73-1	2.5	N.D.
1,4-Dichlorobenzene	106-46-7	2.5	N.D.
n-Butylbenzene	104-51-8	2.5	N.D.
1,2-Dichlorobenzene	95-50-1	2.5	N.D.
1-2-Dibromo-2-CPA	96-12-8	5.0	N.D.
1,2,4-Trichlorobenzene	120-82-1	2.5	N.D.
Hexachlorobutadiene	87-68-3	2.5	N.D.
Naphthalene	91-20-3	2.5	N.D.
1,2,3-Trichlorobenzene	87-61-6	2.5	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

  
Mark Noorani  
Laboratory Director

Surrogate Recoveries	%
Dibromofluoromethane	101
Toluene-d8	95
4-Bromofluorobenzene	105



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4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035-01090010

**Sample Description:** Soil, RR-GS-13-4'  
**Laboratory Sample #:** 97060077  
**Laboratory Reference #:** MWI 9144

**Sampled :** 06-03-97  
**Received:** 06-03-97  
**Analyzed:** 06-05-97  
**Reported:** 06-13-97

## SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT ug/kg</b>	<b>SAMPLE RESULTS ug/kg</b>
Acenaphthene	83-32-9	100	N.D.
Acenaphthylene	208-96-8	100	N.D.
Aniline	62-53-3	100	N.D.
Anthracene	120-12-7	100	N.D.
Benzidine	92-87-5	500	N.D.
Benzoic Acid	65-85-0	250	N.D.
Benzo(a)anthracene	56-55-3	100	N.D.
Benzo(b)fluoranthene	205-99-2	250	N.D.
Benzo(k)fluoranthene	207-08-9	250	N.D.
Benzo(g,h,i)perylene	191-24-2	250	N.D.
Benzo(a)pyrene	50-32-8	250	N.D.
Benzyl alcohol	100-51-6	100	N.D.
Bis(2-chloroethoxy)methane	111-91-1	100	N.D.
Bis(2-chloroethyl)ether	111-44-4	100	N.D.
Bis(2-chloroisopropyl)ether	39638-32-9	100	N.D.
Bis(2-ethylhexyl)phthalate	117-81-7	100	N.D.
4-Bromophenyl phenyl ether	101-55-3	100	N.D.
Butyl benzyl phthalate	85-68-7	100	N.D.
4-Chloroaniline	106-47-8	100	N.D.
2-Chloronaphthalene	91-58-7	100	N.D.
4-Chloro-3-methylphenol	59-50-7	100	N.D.
2-Chlorophenol	95-57-8	100	N.D.
4-Chlorophenyl phenyl ether	7005-72-3	100	N.D.
Chrysene	218-0109	100	N.D.
Dibenz(a,h)anthracene	53-70-3	100	N.D.
Dibenzofuran	132-64-9	100	N.D.
Di-n-butyl phthalate	84-74-2	250	N.D.
1,3-Dichlorobenzene	541-73-1	100	N.D.
1,4-Dichlorobenzene	106-46-7	100	N.D.
1,2-Dichlorobenzene	95-50-1	100	N.D.
3,3'-Dichlorobenzidine	91-94-1	100	N.D.
2,4-Dichlorophenol	120-83-2	100	N.D.
Diethyl phthalate	84-66-2	100	N.D.
2,4-Dimethylphenol	105-67-9	100	N.D.
Dimethyl phthalate	131-11-3	100	N.D.
4,6-Dinitro-2-methylphenol	534-52-1	100	N.D.
2,4-Dinitrophenol	51-28-5	100	N.D.



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### SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

(continued)

Sample Description: Soil, RR-GS-13-4'

Laboratory Sample #: 97060077

ANALYTE	CAS NUMBER	DETECTION LIMIT ug/kg	SAMPLE RESULTS ug/kg
2,4-Dinitrotoluene	121-14-2	250	N.D.
2,6-Dinitrotoluene	606-20-2	250	N.D.
Di-n-octyl phthalate	117-84-0	250	N.D.
Fluoranthene	206-44-0	100	130 <---
Fluorene	86-73-7	100	N.D.
Hexachlorobenzene	118-74-1	100	N.D.
Hexachlorobutadiene	87-68-3	100	N.D.
Hexachlorocyclopentadiene	77-47-4	100	N.D.
Hexachloroethane	67-72-1	100	N.D.
Indeno(1,2,3-cd)pyrene	193-39-5	250	N.D.
Isophorone	78-59-1	100	N.D.
2-Methylnaphthalene	91-57-6	100	N.D.
2-Methylphenol	95-48-7	100	N.D.
4-Methylphenol	106-44-5	100	N.D.
Naphthalene	91-20-3	100	N.D.
2-Nitroaniline	88-74-4	250	N.D.
3-Nitroaniline	99-09-2	250	N.D.
4-Nitroaniline	100-01-6	250	N.D.
Nitrobenzene	98-95-3	100	N.D.
2-Nitrophenol	88-75-5	100	N.D.
4-Nitrophenol	100-02-7	100	N.D.
N-Nitrosodiphenylamine	86-30-6	100	N.D.
N-Nitroso-di-n-propylamine	621-64-7	100	N.D.
N-Nitrosodimethylamine	62-75-9	100	N.D.
Pentachlorophenol	87-86-5	250	N.D.
Phenanthrene	85-01-8	100	N.D.
Phenol	108-95-2	100	N.D.
Pyrene	129-00-0	100	N.D.
1,2,4-Trichlorobenzene	120-82-1	100	N.D.
2,4,5-Trichlorophenol	95-95-4	100	N.D.
2,4,6-Trichlorophenol	88-06-2	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

Mark Noorani  
Laboratory Director



**ORANGE COAST ANALYTICAL, INC.**  
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4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

Montgomery Watson  
ATTN: Mr. Fred Strauss  
150 N. Madison Ave.  
Pasadena, CA 91101

Client Project ID: McDonnell Douglas  
Client Project #: 1206035-01090010

Sample Description: Soil, RR-GS-13-9  
Laboratory Sample #: 97060078  
Laboratory Reference #: MWI 9144

Sampled : 06-03-97  
Received: 06-03-97  
Analyzed: 06-05-97  
Reported: 06-13-97

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

ANALYTE	CAS NUMBER	DETECTION LIMIT ug/kg	SAMPLE RESULTS ug/kg
Acenaphthene	83-32-9	100	N.D.
Acenaphthylene	208-96-8	100	N.D.
Aniline	62-53-3	100	N.D.
Anthracene	120-12-7	100	N.D.
Benzidine	92-87-5	500	N.D.
Benzoic Acid	65-85-0	250	N.D.
Benzo(a)anthracene	56-55-3	100	N.D.
Benzo(b)fluoranthene	205-99-2	250	N.D.
Benzo(k)fluoranthene	207-08-9	250	N.D.
Benzo(g,h,i)perylene	191-24-2	250	N.D.
Benzo(a)pyrene	50-32-8	250	N.D.
Benzyl alcohol	100-51-6	100	N.D.
Bis(2-chloroethoxy)methane	111-91-1	100	N.D.
Bis(2-chloroethyl)ether	111-44-4	100	N.D.
Bis(2-chloroisopropyl)ether	39638-32-9	100	N.D.
Bis(2-ethylhexyl)phthalate	117-81-7	100	N.D.
4-Bromophenyl phenyl ether	101-55-3	100	N.D.
Butyl benzyl phthalate	85-68-7	100	N.D.
4-Chloroaniline	106-47-8	100	N.D.
2-Chloronaphthalene	91-58-7	100	N.D.
4-Chloro-3-methylphenol	59-50-7	100	N.D.
2-Chlorophenol	95-57-8	100	N.D.
4-Chlorophenyl phenyl ether	7005-72-3	100	N.D.
Chrysene	218-0109	100	N.D.
Dibenz(a,h)anthracene	53-70-3	100	N.D.
Dibenzofuran	132-64-9	100	N.D.
Di-n-butyl phthalate	84-74-2	250	N.D.
1,3-Dichlorobenzene	541-73-1	100	N.D.
1,4-Dichlorobenzene	106-46-7	100	N.D.
1,2-Dichlorobenzene	95-50-1	100	N.D.
3,3'-Dichlorobenzidine	91-94-1	100	N.D.
2,4-Dichlorophenol	120-83-2	100	N.D.
Diethyl phthalate	84-66-2	100	N.D.
2,4-Dimethylphenol	105-67-9	100	N.D.
Dimethyl phthalate	131-11-3	100	N.D.
4,6-Dinitro-2-methylphenol	534-52-1	100	N.D.
2,4-Dinitrophenol	51-28-5	100	N.D.



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### SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

(continued)

Sample Description: Soil, RR-GS-13-9'

Laboratory Sample #: 97060078

ANALYTE	CAS NUMBER	DETECTION LIMIT ug/kg	SAMPLE RESULTS ug/kg
2,4-Dinitrotoluene	121-14-2	250	N.D.
2,6-Dinitrotoluene	606-20-2	250	N.D.
Di-n-octyl phthalate	117-84-0	250	N.D.
Fluoranthene	206-44-0	100	N.D.
Fluorene	86-73-7	100	N.D.
Hexachlorobenzene	118-74-1	100	N.D.
Hexachlorobutadiene	87-68-3	100	N.D.
Hexachlorocyclopentadiene	77-47-4	100	N.D.
Hexachloroethane	67-72-1	100	N.D.
Indeno(1,2,3-cd)pyrene	193-39-5	250	N.D.
Isophorone	78-59-1	100	N.D.
2-Methylnaphthalene	91-57-6	100	N.D.
2-Methylphenol	95-48-7	100	N.D.
4-Methylphenol	106-44-5	100	N.D.
Naphthalene	91-20-3	100	N.D.
2-Nitroaniline	88-74-4	250	N.D.
3-Nitroaniline	99-09-2	250	N.D.
4-Nitroaniline	100-01-6	250	N.D.
Nitrobenzene	98-95-3	100	N.D.
2-Nitrophenol	88-75-5	100	N.D.
4-Nitrophenol	100-02-7	100	N.D.
N-Nitrosodiphenylamine	86-30-6	100	N.D.
N-Nitroso-di-n-propylamine	621-64-7	100	N.D.
N-Nitrosodimethylamine	62-75-9	100	N.D.
Pentachlorophenol	87-86-5	250	N.D.
Phenanthrene	85-01-8	100	N.D.
Phenol	108-95-2	100	N.D.
Pyrene	129-00-0	100	N.D.
1,2,4-Trichlorobenzene	120-82-1	100	N.D.
2,4,5-Trichlorophenol	95-95-4	100	N.D.
2,4,6-Trichlorophenol	88-06-2	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

Mark Noorani  
Laboratory Director



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### Montgomery Watson

ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Analysis Method:** EPA 3550/8015m

**Sample Description:** Soil, RR-GS-13-4'  
**Laboratory Sample #:** 97060077  
**Laboratory Reference #:** MWI 9144

**Sampled:** 06/03/97  
**Received:** 06/03/97  
**Analyzed:** 06/06/97  
**Reported:** 06/13/97

### EXTRACTABLE FUEL HYDROCARBONS (EPA 8015M)

<i>Carbon Chain Number</i>	<i>Extractable Hydrocarbons (ppm)</i>
Up to and including C-12	N.D.
C 13-22	N.D.
C 23 & Higher	N.D.
Total	N.D.

---

Detection Limit: 8.0

---

Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

A handwritten signature in black ink, appearing to read "Mark Noorani".

**Mark Noorani**  
Laboratory Director



## ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067  
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

### Montgomery Watson

ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Analysis Method:** EPA 3550/8015m

**Sample Description:** Soil, RR-GS-13-9'  
**Laboratory Sample #:** 97060078  
**Laboratory Reference #:** MWI 9144

**Sampled:** 06/03/97  
**Received:** 06/03/97  
**Analyzed:** 06/06/97  
**Reported:** 06/13/97

### EXTRACTABLE FUEL HYDROCARBONS (EPA 8015M)

<i>Carbon Chain Number</i>	<i>Extractable Hydrocarbons (ppm)</i>
Up to and including C-12	N.D.
C 13-22	N.D.
C 23 & Higher	N.D.

---

Detection Limit: 8.0

Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

Mark Noorani  
Laboratory Director



## ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067  
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035-01090010

**Sample Description:** Soil, RR-GS-13-4'

**Laboratory Sample Number:** 97060077  
**Laboratory Reference #:** MWI 9144

**Sampled:** 06-03-97  
**Received:** 06-03-97  
**Analyzed:** 06-05-97  
**Reported:** 06-13-97

### PCB'S (EPA 8080)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT (ug/kg)</b>	<b>SAMPLE RESULTS (ug/kg)</b>
PCB-1016	12674-11-2	20	N.D.
PCB-1221	11104-28-2	20	N.D.
PCB-1232	11141-16-5	20	N.D.
PCB-1242	53469-21-9	20	N.D.
PCB-1248	12672-29-6	20	N.D.
PCB-1254	11097-69-1	20	N.D.
PCB-1260	11096-82-5	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**ORANGE COAST ANALYTICAL**

  
\_\_\_\_\_  
**Mark Noorani**  
**Laboratory Director**



## ORANGE COAST ANALYTICAL, INC.

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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035-01090010

**Sample Description:** Soil, RR-GS-13-9'

**Laboratory Sample Number:** 97060078  
**Laboratory Reference #:** MWI 9144

**Sampled:** 06-03-97  
**Received:** 06-03-97  
**Analyzed:** 06-05-97  
**Reported:** 06-13-97

### PCB'S (EPA 8080)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT (ug/kg)</b>	<b>SAMPLE RESULTS (ug/kg)</b>
PCB-1016	12674-11-2	20	N.D.
PCB-1221	11104-28-2	20	N.D.
PCB-1232	11141-16-5	20	N.D.
PCB-1242	53469-21-9	20	N.D.
PCB-1248	12672-29-6	20	N.D.
PCB-1254	11097-69-1	20	N.D.
PCB-1260	11096-82-5	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**ORANGE COAST ANALYTICAL**

  
Mark Noorani  
Mark Noorani  
Laboratory Director



## ORANGE COAST ANALYTICAL, INC.

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4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035-01090010

**Analysis Method:** 418.1

**Sampled :** 06-03-97  
**Received:** 06-03-97  
**Analyzed:** 06-09-97  
**Reported:** 06-13-97

**Sample Description:** Water

**Laboratory Reference #:** MWI 9144

### TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

<b>Laboratory Sample Number</b>	<b>Client Sample Number</b>	<b>Sample Result (mg/l)</b>
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97060088	Equip Blank	N.D.
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97060089	Rinsate Blank	N.D.
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<b>Detection Limit:</b>	0.5
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Analyte reported as N.D. was not present above the stated limit of detection.

**ORANGE COAST ANALYTICAL**

  
\_\_\_\_\_  
**Mark Noorani**  
Laboratory Director



## ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067  
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

Montgomery Watson  
ATTN: Mr. Fred Strauss  
250 N. Madison Avenue  
Pasadena, CA 91101

Client Project ID: McDonnell Douglas  
Client Project #: 1206035.01090010

Analysis Method: EPA 3510/8015m

Sampled : 06-03-97

Sample Description: Water

Received: 06-03-97

Laboratory Reference #: MWI 9144

Analyzed: 06-10-97

Reported: 06-13-97

### DIESEL ANALYSIS (EPA 8015m)

Laboratory Sample Number	Client Sample Number	Extractable Hydrocarbons (mg/l)
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97060088	Equip Blank	N.D.
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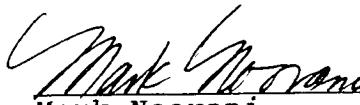
97060089	Rinsate Blank	N.D.
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Detection Limit:	0.5
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Analyte reported as N.D. was not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

  
\_\_\_\_\_  
Mark Noorani  
Laboratory Director



## ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067  
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Avenue  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Analysis Method:**

**Sample Description:** Water

**Sampled :** 06-03-97  
**Received:** 06-03-97  
**Analyzed:** 06-06-97  
**Reported:** 06-13-97

**Laboratory Reference #:** MWI 9144

**VOLATILE FUEL HYDROCARBONS (EPA 8015m)**

**Laboratory  
Sample  
Number**

**Client  
Sample  
Number**

**Volatile Fuel  
Hydrocarbons  
(ug/l)  
(ppb)**

97060088

Equip Blank

N.D.

97060089

Rinsate Blank

N.D.

---

**Detection Limit:**

50

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Volatile Fuel Hydrocarbons are quantitated against a gasoline standard. Hydrocarbons detected by this method range from C6 to C14. Analytes reported as N.D. were not present above the stated limit of detection.

**ORANGE COAST ANALYTICAL**

**Mark Noorani**  
Laboratory Director



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Sample Description:** Water, Equip Blank

**Laboratory Sample Number:** 97060088  
**Laboratory Reference #:** MWI 9144

**Sampled:** 06-03-97  
**Received:** 06-03-97  
**Analyzed:** 06-04-97  
**Reported:** 06-13-97

### CCR - METALS

<b>Analyte</b>	<b>EPA Method</b>	<b>Detection Limit</b> mg/l	<b>Analysis Result</b> mg/l
Antimony	6010	0.5	N.D.
Arsenic	6010	0.1	N.D.
Barium	6010	0.01	N.D.
Beryllium	6010	0.01	N.D.
Cadmium	6010	0.01	N.D.
Chromium (VI)	7196	0.01	N.D.
Chromium (Total)	6010	0.01	N.D.
Cobalt	6010	0.05	N.D.
Copper	6010	0.01	N.D.
Lead	6010	0.1	N.D.
Mercury	7471	0.002	N.D.
Molybdenum	6010	0.1	N.D.
Nickel	6010	0.05	N.D.
Selenium	6010	0.1	N.D.
Silver	6010	0.05	N.D.
Thallium	6010	0.5	N.D.
Vanadium	6010	0.1	N.D.
Zinc	6010	0.01	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**ORANGE COAST ANALYTICAL**

  
\_\_\_\_\_  
**Mark Noorani**  
Laboratory Director



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Sample Description:** Water, Rinsate Blank

**Laboratory Sample Number:** 97060089

**Sampled:** 06-03-97

**Laboratory Reference #:** MWI 9144

**Received:** 06-03-97

**Analyzed:** 06-04-97

**Reported:** 06-13-97

### CCR - METALS

<b>Analyte</b>	<b>EPA Method</b>	<b>Detection Limit</b> mg/l	<b>Analysis Result</b> mg/l
Antimony	6010	0.5	N.D.
Arsenic	6010	0.1	N.D.
Barium	6010	0.01	N.D.
Beryllium	6010	0.01	N.D.
Cadmium	6010	0.01	N.D.
Chromium (VI)	7196	0.01	N.D.
Chromium (Total)	6010	0.01	N.D.
Cobalt	6010	0.05	N.D.
Copper	6010	0.01	N.D.
Lead	6010	0.1	N.D.
Mercury	7471	0.002	N.D.
Molybdenum	6010	0.1	N.D.
Nickel	6010	0.05	N.D.
Selenium	6010	0.1	N.D.
Silver	6010	0.05	N.D.
Thallium	6010	0.5	N.D.
Vanadium	6010	0.1	N.D.
Zinc	6010	0.01	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**ORANGE COAST ANALYTICAL**

  
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Mark Noorani  
Laboratory Director



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035-01090010

**Sample Description:** Water, Equip Blank  
**Laboratory Sample Number:** 97060088  
**Laboratory Reference #:** MWI 9144

**Sampled:** 06-03-97  
**Received:** 06-03-97  
**Analyzed:** 06-06-97  
**Reported:** 06-13-97

### Volatile Organics by GC/MS (EPA 8260)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT (ug/l)</b>	<b>SAMPLE RESULT (ug/l)</b>
Benzene	71-43-2	0.5	N.D.
Bromodichloromethane	75-27-4	0.5	N.D.
Bromoform	75-25-2	0.5	N.D.
Bromomethane	74-83-9	1.0	N.D.
Carbon Disulfide	75-15-0	0.5	N.D.
Carbon tetrachloride	56-23-5	0.5	N.D.
Chlorobenzene	108-90-7	0.5	N.D.
Chlorodibromomethane	124-48-1	0.5	N.D.
Chloroethane	75-00-3	0.5	N.D.
2-Chloroethyl vinyl ether	110-75-8	1.0	N.D.
Chloroform	67-66-3	0.5	N.D.
Chloromethane	74-87-3	0.5	N.D.
1,1-Dichloroethane	75-35-3	0.5	N.D.
1,2-Dichloroethane	107-06-2	0.5	N.D.
1,1-Dichloroethene	75-35-4	0.5	N.D.
Trans 1,2-Dichloroethene	156-60-5	0.5	N.D.
1,2-Dichloropropane	78-87-5	0.5	N.D.
cis-1,3-Dichloropropene	10061-01-5	0.5	N.D.
trans-1,3-Dichloropropene	10061-02-6	0.5	N.D.
Ethylbenzene	100-41-4	0.5	N.D.
Methylene chloride	75-09-2	2.5	N.D.
Styrene	100-42-5	0.5	N.D.
1,1,2,2-Tetrachloroethane	79-34-5	0.5	N.D.
Tetrachloroethene	127-18-4	0.5	N.D.
Toluene	108-88-3	0.5	N.D.
1,1,1-Trichloroethane	71-55-6	0.5	N.D.
1,1,2-Trichloroethane	79-00-5	0.5	N.D.
Trichloroethene	79-01-6	0.5	N.D.
Trichlorofluoromethane	75-69-4	0.5	N.D.
Vinyl acetate	108-05-4	1.0	N.D.
Vinyl chloride	75-01-4	0.5	N.D.
Total Xylenes	1330-20-7	1.0	N.D.
Dichlorofluoromethane	75-71-8	0.5	N.D.
cis-1,2,-Dichloroethane	156-59-4	0.5	N.D.
2,2-Dichloropropane	590-20-7	0.5	N.D.
Bromochloromethane	74-97-5	0.5	N.D.
1,1-Dichloropropene	563-58-6	0.5	N.D.
1,2-Dichloropropane	78-87-5	0.5	N.D.
Dibromomethane	74-95-3	0.5	N.D.
trans-1,3-Dichloropropene	10061-02-6	0.5	N.D.
1,1,2-Trichloroethane	79-00-5	0.5	N.D.
1,2-Dibromoethane	106-93-4	0.5	N.D.



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Sample Description: Water, Equip Blank

Laboratory Sample Number: 97060088

## Volatile Organics by GC/MS (EPA 8260)

ANALYTE	CAS NUMBER	DETECTION LIMIT (ug/l)	SAMPLE RESULT (ug/l)
1,3-Dichloropropane	142-28-9	0.5	N.D.
Dibromochloromethane	124-48-1	0.5	N.D.
Isopropylbenzene	98-82-8	0.5	N.D.
1,1,2,2-Tetrachloroethane	79-34-5	0.5	N.D.
1,2,3-Trichloropropane	96-18-4	0.5	N.D.
Bromobenzene	108-86-1	0.5	N.D.
n-Propylbenzene	103-65-1	0.5	N.D.
2-Chlorotoluene	95-49-8	0.5	N.D.
1,3,5-Trimethylbenzene	108-67-8	0.5	N.D.
4-Chlorotoluene	106-43-4	0.5	N.D.
tert-Butylbenzene	98-06-6	0.5	N.D.
1,2,4-Trimethylbenzene	95-63-6	0.5	N.D.
sec-Butylbenzene	135-98-8	0.5	N.D.
4-Isopropyltoluene	99-87-6	0.5	N.D.
1,3-Dichlorobenzene	541-73-1	0.5	N.D.
1,4-Dichlorobenzene	106-46-7	0.5	N.D.
n-Butylbenzene	104-51-8	0.5	N.D.
1,2-Dichlorobenzene	95-50-1	0.5	N.D.
1-2-Dibromo-2-CPA	96-12-8	1.0	N.D.
1,2,4-Trichlorobenzene	120-82-1	0.5	N.D.
Hexachlorobutadiene	87-68-3	0.5	N.D.
Naphthalene	91-20-3	0.5	N.D.
1,2,3-Trichlorobenzene	87-61-6	0.5	N.D.

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Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

  
Mark Noorani  
Laboratory Director

Surrogate Recoveries

%

Dibromofluoromethane	101
Toluene-d8	101
4-Bromofluorobenzene	101



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035-01090010

**Sample Description:** Water, Rinsate Blank  
**Laboratory Sample Number:** 97060089  
**Laboratory Reference #:** MWI 9144

**Sampled:** 06-03-97  
**Received:** 06-03-97  
**Analyzed:** 06-06-97  
**Reported:** 06-13-97

## Volatile Organics by GC/MS (EPA 8260)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT (ug/l)</b>	<b>SAMPLE RESULT (ug/l)</b>
Benzene	71-43-2	0.5	N.D.
Bromodichloromethane	75-27-4	0.5	N.D.
Bromoform	75-25-2	0.5	N.D.
Bromomethane	74-83-9	1.0	N.D.
Carbon Disulfide	75-15-0	0.5	N.D.
Carbon tetrachloride	56-23-5	0.5	N.D.
Chlorobenzene	108-90-7	0.5	N.D.
Chlorodibromomethane	124-48-1	0.5	N.D.
Chloroethane	75-00-3	0.5	N.D.
2-Chloroethyl vinyl ether	110-75-8	1.0	N.D.
Chloroform	67-66-3	0.5	N.D.
Chloromethane	74-87-3	0.5	N.D.
1,1-Dichloroethane	75-35-3	0.5	N.D.
1,2-Dichloroethane	107-06-2	0.5	N.D.
1,1-Dichloroethene	75-35-4	0.5	N.D.
Trans 1,2-Dichloroethene	156-60-5	0.5	N.D.
1,2-Dichloropropane	78-87-5	0.5	N.D.
cis-1,3-Dichloropropene	10061-01-5	0.5	N.D.
trans-1,3-Dichloropropene	10061-02-6	0.5	N.D.
Ethylbenzene	100-41-4	0.5	N.D.
Methylene chloride	75-09-2	2.5	N.D.
Styrene	100-42-5	0.5	N.D.
1,1,2,2-Tetrachloroethane	79-34-5	0.5	N.D.
Tetrachloroethene	127-18-4	0.5	N.D.
Toluene	108-88-3	0.5	N.D.
1,1,1-Trichloroethane	71-55-6	0.5	N.D.
1,1,2-Trichloroethane	79-00-5	0.5	N.D.
Trichloroethene	79-01-6	0.5	N.D.
Trichlorofluoromethane	75-69-4	0.5	N.D.
Vinyl acetate	108-05-4	1.0	N.D.
Vinyl chloride	75-01-4	0.5	N.D.
Total Xylenes	1330-20-7	1.0	N.D.
Dichlorofluoromethane	75-71-8	0.5	N.D.
cis-1,2,-Dichloroethane	156-59-4	0.5	N.D.
2,2-Dichloropropane	590-20-7	0.5	N.D.
Bromochloromethane	74-97-5	0.5	N.D.
1,1-Dichloropropene	563-58-6	0.5	N.D.
1,2-Dichloropropene	78-87-5	0.5	N.D.
Dibromomethane	74-95-3	0.5	N.D.
trans-1,3-Dichloropropene	10061-02-6	0.5	N.D.
1,1,2-Trichloroethane	79-00-5	0.5	N.D.
1,2-Dibromoethane	106-93-4	0.5	N.D.



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Sample Description: Water, Rinsate Blank

Laboratory Sample Number: 97060089

## Volatile Organics by GC/MS (EPA 8260)

ANALYTE	CAS NUMBER	DETECTION LIMIT (ug/l)	SAMPLE RESULT (ug/l)
1,3-Dichloropropane	142-28-9	0.5	N.D.
Dibromochloromethane	124-48-1	0.5	N.D.
Isopropylbenzene	98-82-8	0.5	N.D.
1,1,2,2-Tetrachloroethane	79-34-5	0.5	N.D.
1,2,3-Trichloropropane	96-18-4	0.5	N.D.
Bromobenzene	108-86-1	0.5	N.D.
n-Propylbenzene	103-65-1	0.5	N.D.
2-Chlorotoluene	95-49-8	0.5	N.D.
1,3,5-Trimethylbenzene	108-67-8	0.5	N.D.
4-Chlorotoluene	106-43-4	0.5	N.D.
tert-Butylbenzene	98-06-6	0.5	N.D.
1,2,4-Trimethylbenzene	95-63-6	0.5	N.D.
sec-Butylbenzene	135-98-8	0.5	N.D.
4-Isopropyltoluene	99-87-6	0.5	N.D.
1,3-Dichlorobenzene	541-73-1	0.5	N.D.
1,4-Dichlorobenzene	106-46-7	0.5	N.D.
n-Butylbenzene	104-51-8	0.5	N.D.
1,2-Dichlorobenzene	95-50-1	0.5	N.D.
1-2-Dibromo-2-CPA	96-12-8	1.0	N.D.
1,2,4-Trichlorobenzene	120-82-1	0.5	N.D.
Hexachlorobutadiene	87-68-3	0.5	N.D.
Naphthalene	91-20-3	0.5	N.D.
1,2,3-Trichlorobenzene	87-61-6	0.5	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

Mark Noorani  
Laboratory Director

## Surrogate Recoveries

	%
Dibromofluoromethane	99
Toluene-d8	98
4-Bromofluorobenzene	100



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035-01090010

**Sample Description:** Water, Trip Blank  
**Laboratory Sample Number:** 97060090  
**Laboratory Reference #:** MWI 9144

**Sampled:** 06-03-97  
**Received:** 06-03-97  
**Analyzed:** 06-06-97  
**Reported:** 06-13-97

## Volatile Organics by GC/MS (EPA 8260)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT (ug/l)</b>	<b>SAMPLE RESULT (ug/l)</b>
Benzene	71-43-2	0.5	N.D.
Bromodichloromethane	75-27-4	0.5	N.D.
Bromoform	75-25-2	0.5	N.D.
Bromomethane	74-83-9	1.0	N.D.
Carbon Disulfide	75-15-0	0.5	N.D.
Carbon tetrachloride	56-23-5	0.5	N.D.
Chlorobenzene	108-90-7	0.5	N.D.
Chlorodibromomethane	124-48-1	0.5	N.D.
Chloroethane	75-00-3	0.5	N.D.
2-Chloroethyl vinyl ether	110-75-8	1.0	N.D.
Chloroform	67-66-3	0.5	N.D.
Chloromethane	74-87-3	0.5	N.D.
1,1-Dichloroethane	75-35-3	0.5	N.D.
1,2-Dichloroethane	107-06-2	0.5	N.D.
1,1-Dichloroethene	75-35-4	0.5	N.D.
Trans 1,2-Dichloroethene	156-60-5	0.5	N.D.
1,2-Dichloropropane	78-87-5	0.5	N.D.
cis-1,3-Dichloropropene	10061-01-5	0.5	N.D.
trans-1,3-Dichloropropene	10061-02-6	0.5	N.D.
Ethylbenzene	100-41-4	0.5	N.D.
Methylene chloride	75-09-2	2.5	N.D.
Styrene	100-42-5	0.5	N.D.
1,1,2,2-Tetrachloroethane	79-34-5	0.5	N.D.
Tetrachloroethene	127-18-4	0.5	N.D.
Toluene	108-88-3	0.5	N.D.
1,1,1-Trichloroethane	71-55-6	0.5	N.D.
1,1,2-Trichloroethane	79-00-5	0.5	N.D.
Trichloroethene	79-01-6	0.5	N.D.
Trichlorofluoromethane	75-69-4	0.5	N.D.
Vinyl acetate	108-05-4	1.0	N.D.
Vinyl chloride	75-01-4	0.5	N.D.
Total Xylenes	1330-20-7	1.0	N.D.
Dichlorofluoromethane	75-71-8	0.5	N.D.
cis-1,2,-Dichloroethane	156-59-4	0.5	N.D.
2,2-Dichloropropane	590-20-7	0.5	N.D.
Bromoform	74-97-5	0.5	N.D.
1,1-Dichloropropene	563-58-6	0.5	N.D.
1,2-Dichloropropane	78-87-5	0.5	N.D.
Dibromomethane	74-95-3	0.5	N.D.
trans-1,3-Dichloropropane	10061-02-6	0.5	N.D.
1,1,2-Trichloroethane	79-00-5	0.5	N.D.
1,2-Dibromoethane	106-93-4	0.5	N.D.



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Sample Description: Water, Trip Blank

Laboratory Sample Number: 97060090

### Volatile Organics by GC/MS (EPA 8260)

ANALYTE	CAS NUMBER	DETECTION LIMIT (ug/l)	SAMPLE RESULT (ug/l)
1,3-Dichloropropane	142-28-9	0.5	N.D.
Dibromochloromethane	124-48-1	0.5	N.D.
Isopropylbenzene	98-82-8	0.5	N.D.
1,1,2,2-Tetrachloroethane	79-34-5	0.5	N.D.
1,2,3-Trichloropropane	96-18-4	0.5	N.D.
Bromobenzene	108-86-1	0.5	N.D.
n-Propylbenzene	103-65-1	0.5	N.D.
2-Chlorotoluene	95-49-8	0.5	N.D.
1,3,5-Trimethylbenzene	108-67-8	0.5	N.D.
4-Chlorotoluene	106-43-4	0.5	N.D.
tert-Butylbenzene	98-06-6	0.5	N.D.
1,2,4-Trimethylbenzene	95-63-6	0.5	N.D.
sec-Butylbenzene	135-98-8	0.5	N.D.
4-Isopropyltoluene	99-87-6	0.5	N.D.
1,3-Dichlorobenzene	541-73-1	0.5	N.D.
1,4-Dichlorobenzene	106-46-7	0.5	N.D.
n-Butylbenzene	104-51-8	0.5	N.D.
1,2-Dichlorobenzene	95-50-1	0.5	N.D.
1-2-Dibromo-2-CPA	96-12-8	1.0	N.D.
1,2,4-Trichlorobenzene	120-82-1	0.5	N.D.
Hexachlorobutadiene	87-68-3	0.5	N.D.
Naphthalene	91-20-3	0.5	N.D.
1,2,3-Trichlorobenzene	87-61-6	0.5	N.D.

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Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

Mark Noorani  
Laboratory Director

Surrogate Recoveries

Dibromofluoromethane	103
Toluene-d8	98
4-Bromofluorobenzene	100



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Montgomery Watson  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

Client Project ID: McDonnell Douglas  
Client Project #: 1206035.01090010

Sample Description: Water, Equip Blank      Sampled : 06-03-97  
Laboratory Sample #: 97060088      Received: 06-03-97  
Laboratory Reference #: MWI 9144      Analyzed: 06-06-97  
    Reported: 06-13-97

## SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

ANALYTE	CAS NUMBER	DETECTION LIMIT ug/l	SAMPLE RESULTS ug/l
Acenaphthene	83-32-9	5.0	N.D.
Acenaphthylene	208-96-8	5.0	N.D.
Aniline	62-53-3	5.0	N.D.
Anthracene	120-12-7	5.0	N.D.
Benzidine	92-87-5	5.0	N.D.
Benzoic Acid	65-85-0	50	N.D.
Benzo(a)anthracene	56-55-3	5.0	N.D.
Benzo(b)fluoranthene	205-99-2	25	N.D.
Benzo(k)fluoranthene	207-08-9	25	N.D.
Benzo(g,h,i)perylene	191-24-2	25	N.D.
Benzo(a)pyrene	50-32-8	25	N.D.
Benzyl alcohol	100-51-6	50	N.D.
Bis(2-chloroethoxy)methane	111-91-1	5.0	N.D.
Bis(2-chloroethyl)ether	111-44-4	5.0	N.D.
Bis(2-chloroisopropyl)ether	39638-32-9	5.0	N.D.
Bis(2-ethylhexyl)phthalate	117-81-7	3.0	N.D.
4-Bromophenyl phenyl ether	101-55-3	5.0	N.D.
Butyl benzyl phthalate	85-68-7	5.0	N.D.
4-Chloroaniline	106-47-8	5.0	N.D.
2-Chloronaphthalene	91-58-7	5.0	N.D.
4-Chloro-3-methylphenol	59-50-7	5.0	N.D.
2-Chlorophenol	95-57-8	5.0	N.D.
4-Chlorophenyl phenyl ether	7005-72-3	5.0	N.D.
Chrysene	218-0109	5.0	N.D.
Dibenz(a,h)anthracene	53-70-3	25	N.D.
Dibenzofuran	132-64-9	5.0	N.D.
Di-N-butyl phthalate	84-74-2	5.0	N.D.
1,3-Dichlorobenzene	541-73-1	5.0	N.D.
1,4-Dichlorobenzene	106-46-7	5.0	N.D.
1,2-Dichlorobenzene	95-50-1	5.0	N.D.
3,3-Dichlorobenzidine	91-94-1	5.0	N.D.
2,4-Dichlorophenol	120-83-2	5.0	N.D.
Diethyl phthalate	84-66-2	5.0	N.D.
2,4-Dimethylphenol	105-67-9	5.0	N.D.
Dimethyl phthalate	131-11-3	5.0	N.D.
4,6-Dinitro-2-methylphenol	534-52-1	50	N.D.
2,4-Dinitrophenol	51-28-5	50	N.D.



## ORANGE COAST ANALYTICAL, INC.

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### SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

(continued)

Sample Description: Water, Equip Blank  
Laboratory Sample #: 97060088

ANALYTE	CAS NUMBER	DETECTION LIMIT ug/l	SAMPLE RESULTS ug/l
2,4-Dinitrotoluene	121-14-2	5.0	N.D.
2,6-Dinitrotoluene	606-20-2	5.0	N.D.
Di-N-octyl phthalate	117-84-0	25	N.D.
Fluoranthene	206-44-0	5.0	N.D.
Fluorene	86-73-7	5.0	N.D.
Hexachlorobenzene	118-74-1	5.0	N.D.
Hexachlorobutadiene	87-68-3	5.0	N.D.
Hexachlorocyclopentadiene	77-47-4	5.0	N.D.
Hexachloroethane	67-72-1	5.0	N.D.
Indeno(1,2,3-cd)pyrene	193-39-5	25	N.D.
Isophorone	78-59-1	5.0	N.D.
2-Methylnaphthalene	91-57-6	5.0	N.D.
2-Methylphenol	95-48-7	5.0	N.D.
4-Methylphenol	106-44-5	5.0	N.D.
Naphthalene	91-20-3	50	N.D.
2-Nitroaniline	88-74-4	50	N.D.
3-Nitroaniline	99-09-2	50	N.D.
4-Nitroaniline	100-01-6	5.0	N.D.
Nitrobenzene	98-95-3	5.0	N.D.
2-Nitrophenol	88-75-5	5.0	N.D.
4-Nitrophenol	100-02-7	50	N.D.
N-Nitrosodiphenylamine	86-30-6	5.0	N.D.
N-Nitroso-di-N-propylamine	621-64-7	5.0	N.D.
N-Nitrosodimethylamine	62-75-9	5.0	N.D.
Pentachlorophenol	87-86-5	50	N.D.
Phenanthrene	85-01-8	5.0	N.D.
Phenol	108-95-2	5.0	N.D.
Pyrene	129-00-0	5.0	N.D.
1,2,4-Trichlorobenzene	120-82-1	5.0	N.D.
2,4,5-Trichlorophenol	95-95-4	5.0	N.D.
2,4,6-Trichlorophenol	88-06-2	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

Mark Noorani  
Laboratory Director



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Sample Description:** Water, Rinsate Blank      **Sampled :** 06-03-97  
**Laboratory Sample #:** 97060089      **Received:** 06-03-97  
**Laboratory Reference #:** MWI 9144      **Analyzed:** 06-06-97  
    **Reported:** 06-13-97

## SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT ug/l</b>	<b>SAMPLE RESULTS ug/l</b>
Acenaphthene	83-32-9	5.0	N.D.
Acenaphthylene	208-96-8	5.0	N.D.
Aniline	62-53-3	5.0	N.D.
Anthracene	120-12-7	5.0	N.D.
Benzidine	92-87-5	5.0	N.D.
Benzoic Acid	65-85-0	50	N.D.
Benzo(a)anthracene	56-55-3	5.0	N.D.
Benzo(b)fluoranthene	205-99-2	25	N.D.
Benzo(k)fluoranthene	207-08-9	25	N.D.
Benzo(g,h,i)perylene	191-24-2	25	N.D.
Benzo(a)pyrene	50-32-8	25	N.D.
Benzyl alcohol	100-51-6	50	N.D.
Bis(2-chloroethoxy)methane	111-91-1	5.0	N.D.
Bis(2-chloroethyl)ether	111-44-4	5.0	N.D.
Bis(2-chloroisopropyl)ether	39638-32-9	5.0	N.D.
Bis(2-ethylhexyl)phthalate	117-81-7	3.0	N.D.
4-Bromophenyl phenyl ether	101-55-3	5.0	N.D.
Butyl benzyl phthalate	85-68-7	5.0	N.D.
4-Chloroaniline	106-47-8	5.0	N.D.
2-Chloronaphthalene	91-58-7	5.0	N.D.
4-Chloro-3-methylphenol	59-50-7	5.0	N.D.
2-Chlorophenol	95-57-8	5.0	N.D.
4-Chlorophenyl phenyl ether	7005-72-3	5.0	N.D.
Chrysene	218-0109	5.0	N.D.
Dibenz(a,h)anthracene	53-70-3	25	N.D.
Dibenzofuran	132-64-9	5.0	N.D.
Di-N-butyl phthalate	84-74-2	5.0	N.D.
1,3-Dichlorobenzene	541-73-1	5.0	N.D.
1,4-Dichlorobenzene	106-46-7	5.0	N.D.
1,2-Dichlorobenzene	95-50-1	5.0	N.D.
3,3-Dichlorobenzidine	91-94-1	5.0	N.D.
2,4-Dichlorophenol	120-83-2	5.0	N.D.
Diethyl phthalate	84-66-2	5.0	N.D.
2,4-Dimethylphenol	105-67-9	5.0	N.D.
Dimethyl phthalate	131-11-3	5.0	N.D.
4,6-Dinitro-2-methylphenol	534-52-1	50	N.D.
2,4-Dinitrophenol	51-28-5	50	N.D.



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### SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

(continued)

Sample Description: Water, Rinsate Blank  
Laboratory Sample #: 97060089

ANALYTE	CAS NUMBER	DETECTION LIMIT ug/l	SAMPLE RESULTS ug/l
2,4-Dinitrotoluene	121-14-2	5.0	N.D.
2,6-Dinitrotoluene	606-20-2	5.0	N.D.
Di-N-octyl phthalate	117-84-0	25	N.D.
Fluoranthene	206-44-0	5.0	N.D.
Fluorene	86-73-7	5.0	N.D.
Hexachlorobenzene	118-74-1	5.0	N.D.
Hexachlorobutadiene	87-68-3	5.0	N.D.
Hexachlorocyclopentadiene	77-47-4	5.0	N.D.
Hexachloroethane	67-72-1	5.0	N.D.
Indeno(1,2,3-cd)pyrene	193-39-5	25	N.D.
Isophorone	78-59-1	5.0	N.D.
2-Methylnaphthalene	91-57-6	5.0	N.D.
2-Methylphenol	95-48-7	5.0	N.D.
4-Methylphenol	106-44-5	5.0	N.D.
Naphthalene	91-20-3	50	N.D.
2-Nitroaniline	88-74-4	50	N.D.
3-Nitroaniline	99-09-2	50	N.D.
4-Nitroaniline	100-01-6	5.0	N.D.
Nitrobenzene	98-95-3	5.0	N.D.
2-Nitrophenol	88-75-5	5.0	N.D.
4-Nitrophenol	100-02-7	50	N.D.
N-Nitrosodiphenylamine	86-30-6	5.0	N.D.
N-Nitroso-di-N-propylamine	621-64-7	5.0	N.D.
N-Nitrosodimethylamine	62-75-9	5.0	N.D.
Pentachlorophenol	87-86-5	50	N.D.
Phenanthrene	85-01-8	5.0	N.D.
Phenol	108-95-2	5.0	N.D.
Pyrene	129-00-0	5.0	N.D.
1,2,4-Trichlorobenzene	120-82-1	5.0	N.D.
2,4,5-Trichlorophenol	95-95-4	5.0	N.D.
2,4,6-Trichlorophenol	88-06-2	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

ORANGE COAST ANALYTICAL

Mark Noorani  
Laboratory Director



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**Montgomery Watson**  
ATTN: Mr. Fred Strauss  
250 N. Madison Ave.  
Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Sample Description:** Water, Equip Blank

**Laboratory Sample Number:** 97060088  
**Laboratory Reference #:** MWI 9144

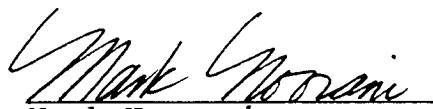
**Sampled:** 06-03-97  
**Received:** 06-03-97  
**Analyzed:** 06-10-97  
**Reported:** 06-13-97

### ORGANOCHLORINE PESTICIDES (EPA 8080)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT (ug/l)</b>	<b>SAMPLE RESULTS (ug/l)</b>
Aldrin	309-00-2	0.1	N.D.
alpha-BHC	319-84-6	0.2	N.D.
beta-BHC	319-85-7	0.2	N.D.
delta-BHC	319-86-8	0.2	N.D.
gamma-BHC (Lindane)	58-89-9	0.2	N.D.
Chlordane	57-74-9	0.2	N.D.
4,4'-DDD	72-54-8	0.5	N.D.
4,4'-DDE	72-55-9	0.1	N.D.
4,4'-DDT	50-29-3	0.1	N.D.
Dieldrin	60-57-1	0.5	N.D.
Endosulfan I	959-98-8	0.5	N.D.
Endosulfan II	33213-65-9	0.5	N.D.
Endosulfan sulfate	1031-07-8	0.5	N.D.
Endrin	72-20-8	0.02	N.D.
Endrin aldehyde	7421-93-4	0.2	N.D.
Heptachlor	76-44-8	0.1	N.D.
Heptachlor epoxide	1024-57-3	0.2	N.D.
Methoxychlor	72-43-5	9.0	N.D.
Toxaphene	8001-35-2	0.5	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**ORANGE COAST ANALYTICAL**

  
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**Client Project #:** 1206035.01090010

**Sample Description:** Water, Rinsate Blank

**Laboratory Sample Number:** 97060089  
**Laboratory Reference #:** MWI 9144

**Sampled:** 06-03-97  
**Received:** 06-03-97  
**Analyzed:** 06-10-97  
**Reported:** 06-13-97

### ORGANOCHLORINE PESTICIDES (EPA 8080)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT (ug/l)</b>	<b>SAMPLE RESULTS (ug/l)</b>
Aldrin	309-00-2	0.1	N.D.
alpha-BHC	319-84-6	0.2	N.D.
beta-BHC	319-85-7	0.2	N.D.
delta-BHC	319-86-8	0.2	N.D.
gamma-BHC (Lindane)	58-89-9	0.2	N.D.
Chlordane	57-74-9	0.2	N.D.
4,4'-DDD	72-54-8	0.5	N.D.
4,4'-DDE	72-55-9	0.1	N.D.
4,4'-DDT	50-29-3	0.1	N.D.
Dieldrin	60-57-1	0.5	N.D.
Endosulfan I	959-98-8	0.5	N.D.
Endosulfan II	33213-65-9	0.5	N.D.
Endosulfan sulfate	1031-07-8	0.5	N.D.
Endrin	72-20-8	0.02	N.D.
Endrin aldehyde	7421-93-4	0.2	N.D.
Heptachlor	76-44-8	0.1	N.D.
Heptachlor epoxide	1024-57-3	0.2	N.D.
Methoxychlor	72-43-5	9.0	N.D.
Toxaphene	8001-35-2	0.5	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Sample Description:** Water, Equip Blank

**Laboratory Sample Number:** 97060088  
**Laboratory Reference #:** MWI 9144

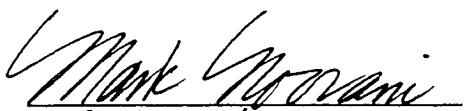
**Sampled:** 06-03-97  
**Received:** 06-03-97  
**Analyzed:** 06-10-97  
**Reported:** 06-13-97

### PCB'S (EPA 8080)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT (ug/l)</b>	<b>SAMPLE RESULTS (ug/l)</b>
PCB-1016	12674-11-2	5.0	N.D.
PCB-1221	11104-28-2	5.0	N.D.
PCB-1232	11141-16-5	5.0	N.D.
PCB-1242	53469-21-9	5.0	N.D.
PCB-1248	12672-29-6	5.0	N.D.
PCB-1254	11097-69-1	5.0	N.D.
PCB-1260	11096-82-5	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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**Montgomery Watson**  
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Pasadena, CA 91101

**Client Project ID:** McDonnell Douglas  
**Client Project #:** 1206035.01090010

**Sample Description:** Water, Rinsate Blank

**Sampled:** 06-03-97  
**Received:** 06-03-97  
**Analyzed:** 06-10-97  
**Reported:** 06-13-97

### PCB'S (EPA 8080)

<b>ANALYTE</b>	<b>CAS NUMBER</b>	<b>DETECTION LIMIT (ug/l)</b>	<b>SAMPLE RESULTS (ug/l)</b>
PCB-1016	12674-11-2	5.0	N.D.
PCB-1221	11104-28-2	5.0	N.D.
PCB-1232	11141-16-5	5.0	N.D.
PCB-1242	53469-21-9	5.0	N.D.
PCB-1248	12672-29-6	5.0	N.D.
PCB-1254	11097-69-1	5.0	N.D.
PCB-1260	11096-82-5	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

*ORANGE COAST ANALYTICAL*

  
\_\_\_\_\_  
**Mark Noorani**  
Laboratory Director



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### QC DATA REPORT

Analysis : PCB 'S ( EPA 8080 )

Date of Analysis : 06/05/97

Laboratory Sample No : 97060006

Laboratory Reference No : MWI 9144

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
PCB-1260	0.0	250	240	210	96	84	13

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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\_\_\_\_\_  
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Laboratory Director



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### QC DATA REPORT

Analysis : PCB 'S ( EPA 8080 )

Date of Analysis : 06/10/97

Laboratory Sample No : OCA 100

Laboratory Reference No : MWI 9144

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
PCB-1260	0.0	20	17	16	85	80	6

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

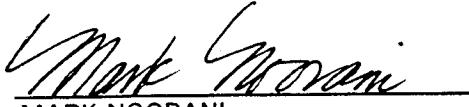
MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

ORANGE COAST ANALYTICAL

  
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Laboratory Director



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### QC DATA REPORT

Analysis : Metals ( EPA 6010 )

Date of Analysis : 06/11/97

Laboratory Sample No : 97060014

Laboratory Reference No : MWI 9144

Analyte	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Chromium	0.28	1.00	1.25	1.22	97	94	2
Lead	0.0	10.0	8.7	8.8	87	88	1

Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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\_\_\_\_\_  
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### QC DATA REPORT

Analysis : Extractable Fuel Hydrocarbons ( EPA 8015m)

Date of Analysis : 06/06/97

Laboratory Sample No : OCA 200

Laboratory Reference No : MWI 9144

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
Hydrocarbons	0.0	100	56	55	56	55	2

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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MARK NOORANI  
Laboratory Director



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### QC DATA REPORT

Analysis : Extractable Fuel Hydrocarbons ( EPA 8015m)

Date of Analysis : 06/04/97

Laboratory Sample No : OCA 200

Laboratory Reference No : MWI 9144

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
Hydrocarbons	0.0	100	106	111	106	111	5

Definition of Terms :

R1                  Results Of First Analysis

SP                  Spike Concentration Added to Sample

MS                  Matrix Spike Results

MSD                Matrix Spike Duplicate Results

PR1                Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Volatile Organics by GC/MS (EPA 8260)

Date of Analysis : 06/06/97

Laboratory Sample No : 97060020

Laboratory Reference No : MWI 9144

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
Benzene	0.0	20	20	19	100	95	5
1,1-Dichloroethene	0.0	20	20	19	100	95	5
Trichloroethene	0.0	20	19	18	95	90	5
Toluene	0.0	20	21	19	105	95	10
Chlorobenzene	0.0	20	19	19	95	95	0

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

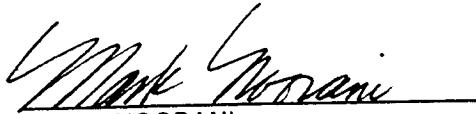
MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Volatile Organics by GC/MS (EPA 8260)

Date of Analysis : 06/04/97

Laboratory Sample No : OCA 200

Laboratory Reference No : MWI 9144

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
Benzene	0.0	50	52	52	104	104	0
1,1-Dichloroethene	0.0	50	53	56	106	112	6
Trichloroethene	0.0	50	56	57	112	114	2
Toluene	0.0	50	50	51	100	102	2
Chlorobenzene	0.0	50	50	51	100	102	2

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Volatile Organics by GC/MS (EPA 8260)

Date of Analysis : 06/09/97

Laboratory Sample No : 97060010

Laboratory Reference No : MWI 9144

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
Benzene	0.0	50	48	47	96	94	2
1,1-Dichloroethene	0.0	50	44	42	88	84	5
Trichloroethene	0.0	50	45	46	90	92	2
Toluene	0.0	50	48	48	96	96	0
Chlorobenzene	0.0	50	48	47	96	94	2

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Total Recoverable Petroleum Hydrocarbons (EPA 418.1)

Date of Analysis : 06/04/97

Laboratory Sample No : 97060005

Laboratory Reference No : MWI 9144

Analyte	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Hydrocarbons	0	100	99	95	99	95	4

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Total Recoverable Petroleum Hydrocarbons (EPA 418.1)

Date of Analysis : 06/09/97

Laboratory Sample No : OCA 100

Laboratory Reference No : MWI 9144

Analyte	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Hydrocarbons	0.0	2.5	2.1	2.0	84	80	5

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                  Matrix Spike Duplicate Results

PR1                  Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                  Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                  Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Extractable Fuel Hydrocarbons ( EPA 8015m)

Date of Analysis : 06/10/97

Laboratory Sample No : OCA 100

Laboratory Reference No : MWI 9144

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
Hydrocarbons	0.0	5.0	3.6	2.9	72	58	22

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Volatile Fuel Hydrocarbons ( EPA 5030 / 8015m )

Date of Analysis : 06/06/97

Laboratory Sample No : 97060018

Laboratory Reference No : MWI 9144

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
Hydrocarbons	0	250	280	250	112	100	11

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Volatile Fuel Hydrocarbons ( EPA 5030 / 8015m )

Date of Analysis : 06/04/97

Laboratory Sample No : 97060023

Laboratory Reference No : MWI 9144

Analyte	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Hydrocarbons	0	50	40	33	80	66	19

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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## QC DATA REPORT

Analysis : Volatile Fuel Hydrocarbons ( EPA 5030 / 8015m )

Date of Analysis : 06/09/97

Laboratory Sample No : 97060127

Laboratory Reference No : MWI 9144

Analyte	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Hydrocarbons	0	50	60	50	120	100	18

### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Semi-Volatile Organics by GC/MS (EPA 8270)

Date of Analysis : 06/06/97

Laboratory Sample No : OCA 100

Laboratory Reference No : MWI 9144

Analyte	R1 (ng)	SP (ng)	MS (ng)	MSD (ng)	PR1 %	PR2 %	RPD %
1,4-Dichlorobenzene	0.0	50	33	34	66	68	3
n-Nitroso-di-n-propylamine	0.0	50	44	41	88	82	7
1,2,4-Trichlorobenzene	0.0	50	33	34	66	68	3
Acenaphthene	0.0	50	41	43	82	86	5
Pyrene	0.0	50	39	40	78	80	3
Pentachlorophenol	0.0	100	69	73	69	73	6
4-Chloro-3-Methylphenol	0.0	100	52	54	52	54	4
2-Chlorophenol	0.0	100	75	74	75	74	1
Phenol	0.0	100	26	25	26	25	4

#### Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: $\{(MS-R1) / SP\} \times 100$
PR2	Percent Recovery Of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD	Relative Percent Difference: $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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## QC DATA REPORT

Analysis : Semi-Volatile Organics by GC/MS (EPA 8270)

Date of Analysis : 06/05/97

Laboratory Sample No : 97060080

Laboratory Reference No : MWI 9144

Analyte	R1 (ng)	SP (ng)	MS (ng)	MSD (ng)	PR1 %	PR2 %	RPD %
1,4-Dichlorobenzene	0.0	50	43	44	86	88	2
n-Nitroso-di-n-propylamine	0.0	50	43	41	86	82	5
1,2,4-Trichlorobenzene	0.0	50	42	42	84	84	0
Acenaphthene	0.0	50	45	45	90	90	0
Pyrene	0.0	50	41	43	82	86	5
Pentachlorophenol	0.0	100	81	80	81	80	1
4-Chloro-3-Methylphenol	0.0	100	71	70	71	70	1
2-Chlorophenol	0.0	100	83	84	83	84	1
Phenol	0.0	100	75	76	75	76	1

### Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: $\{(MS-R1) / SP\} \times 100$
PR2	Percent Recovery Of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD	Relative Percent Difference: $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Semi-Volatile Organics by GC/MS (EPA 8270)

Date of Analysis : 06/10/97

Laboratory Sample No : 97060253

Laboratory Reference No : MWI 9144

Analyte	R1 (ng)	SP (ng)	MS (ng)	MSD (ng)	PR1 %	PR2 %	RPD %
1,4-Dichlorobenzene	0.0	50	44	41	88	82	7
n-Nitroso-di-n-propylamine	0.0	50	44	41	88	82	7
1,2,4-Trichlorobenzene	0.0	50	42	39	84	78	7
Acenaphthene	0.0	50	45	42	90	84	7
Pyrene	0.0	50	43	41	86	82	5
Pentachlorophenol	0.0	100	76	69	76	69	10
4-Chloro-3-Methylphenol	0.0	100	67	63	67	63	6
2-Chlorophenol	0.0	100	84	80	84	80	5
Phenol	0.0	100	76	72	76	72	5

#### Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: $\{(MS-R1) / SP\} \times 100$
PR2	Percent Recovery Of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD	Relative Percent Difference: $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Metals

Date of Analysis : 06/04/97

Laboratory Sample No : 97050559

Laboratory Reference No : MWI 9144

Analyte	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Antimony	0.00	3.00	2.80	3.20	93	107	13
Arsenic	0.00	1.00	1.04	1.09	104	109	5
Barium	0.021	0.100	0.121	0.115	100	94	5
Beryllium	0.00	0.100	0.103	0.098	103	98	5
Cadmium	0.00	0.100	0.119	0.112	119	112	6
Chromium ( VI )	0.00	0.50	0.51	0.48	102	96	6
Chromium (Total)	0.00	0.100	0.097	0.085	97	85	13
Cobalt	0.00	0.100	0.116	0.105	116	105	10
Copper	0.073	0.100	0.168	0.171	95	98	2
Lead	0.00	1.00	1.19	1.19	119	119	0
Mercury	0.000	0.020	0.021	0.020	105	100	5
Molybdenum	0.00	1.00	1.13	1.08	113	108	5
Nickel	0.00	0.50	0.50	0.51	100	102	2
Selenium	0.00	1.00	1.06	1.20	106	120	12
Silver *	0.00	0.50	0.36	0.35	72	70	3
Thallium	0.00	3.00	2.30	2.40	77	80	4
Vanadium	0.16	0.50	0.62	0.64	92	96	3
Zinc	0.039	0.100	0.129	0.137	90	98	6

#### Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: $\{(MS-R1) / SP\} \times 100$
PR2	Percent Recovery Of MSD: $\{(MSD-R1) / SP\} \times 100$
RPD	Relative Percent Difference: $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

Matrix interference \*

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### QC DATA REPORT

Analysis : Metals

Date of Analysis : 06/04/97

Laboratory Sample No : 97060087

Laboratory Reference No : MWI 9144

Analyte	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Antimony	0.0	30.0	28.0	31.0	93	103	10
Arsenic	0.0	10.0	9.4	8.9	94	89	5
Barium	9.6	10.0	19.0	19.0	94	94	0
Beryllium	0.00	1.00	0.98	0.92	98	92	6
Cadmium	0.00	1.00	1.01	1.06	101	106	5
Chromium (Total )	12.0	5.0	16.0	16.0	80	80	0
Chromium ( VI )	0.00	1.00	0.84	0.85	84	85	1
Cobalt	0.60	1.00	1.60	1.45	100	85	10
Copper	2.80	1.00	3.70	3.60	90	80	3
Lead	0.0	10.0	10.7	10.1	107	101	6
Mercury	0.000	0.020	0.018	0.021	90	105	15
Molybdenum	0.0	10.0	10.0	10.2	100	102	2
Nickel	1.00	5.00	6.40	6.20	108	104	3
Selenium	0.0	10.0	11.3	11.7	113	117	3
Silver	0.0	5.0	4.3	4.0	86	80	7
Thallium	0.0	30.0	24.0	28.0	80	93	15
Vanadium	2.4	5.0	7.3	7.1	98	94	3
Zinc	6.0	5.0	10.0	10.3	80	86	3

#### Definition of Terms :

- R1                   Results Of First Analysis  
SP                   Spike Concentration Added to Sample  
MS                   Matrix Spike Results  
MSD                  Matrix Spike Duplicate Results  
PR1                  Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$   
PR2                  Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$   
RPD                  Relative Percent Difference:  $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$

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### QC DATA REPORT

Analysis : Organochlorine Pesticides (EPA 8080)

Date of Analysis : 06/10/97

Laboratory Sample No : OCA 100

Laboratory Reference No : MWI 9144

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
4,4'-DDT	0.0	1.00	1.00	0.90	100	90	11

#### Definition of Terms :

R1                   Results Of First Analysis

SP                   Spike Concentration Added to Sample

MS                   Matrix Spike Results

MSD                 Matrix Spike Duplicate Results

PR1                 Percent Recovery Of MS:  $\{(MS-R1) / SP\} \times 100$

PR2                 Percent Recovery Of MSD:  $\{(MSD-R1) / SP\} \times 100$

RPD                 Relative Percent Difference:  $\{(MS-MSD) / (MS + MSD)\} \times 100 \times 2$

ORANGE COAST ANALYTICAL

  
\_\_\_\_\_  
MARK NOORANI  
Laboratory Director



**ORANGE COAST ANALYTICAL, INC.**      **Analysis Request and**  
**Chain of Custody Record**

3002 Dow, Suite 532  
 Tustin, CA 92680  
 (714) 832-0064, Fax (714) 832-0067

**ANALYSIS REQUEST**

24 hr TAT on Soil/ TRPH; Rush 24 hr  
 TAT as noted below;  
 REQUIRED TAT:

CUSTOMER INFORMATION		PROJECT INFORMATION					REMARKS/PRECAUTIONS	
COMPANY:	Montgomery Watson	PROJECT NAME:	NR. Darnell Douglas				ANALYSIS METHOD	
SEND REPORT TO:	Fred Strauss	NUMBER:	1206035.01090010				TRPH 418.1	
ADDRESS:	250 N. Madison Ave. Pasadena, CA 91101	LOCATION:	Bldg. 37 Area 1950's S. Normandie Ave. Los Angeles, CA				GC/MS 8260	
PHONE:	818-568-6582 FAX: 818-796-5941	SAMPLED BY:	AWN/I/V/AVL/M				GC/MS 8260	
SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	PRES.		
RR-GS-13-4'	2	6/3/97	0747	SOIL	STEAM ICE	X		
RR-GS-13-9'	2		0756			X		
RR-GS-14-8'	2		0817			X		
RR-GS-15-8'	2		0838			X		
RR-GS-16-4'	2		0855			X		
RR-GS-16-7'	2		0900			X		
RR-GS-17-6'	2		0915			X		
RR-GS-18-8'	2		0938			X		
PL-GS-1-2.5'	2		1610			X		
PL-GS-2-2.5'	2		1620			X		
PL-GS-3-3'	2		1630			X		
Equipment Blank	8		1638	water	None	X		
Rinseate Blank	8		1645	water	None	X		
Trip Blank	2		—	2 way	ice	X		
Method of Shipment: 2 coolers via Orange Coast Courier								
Relinquished By:	Date/Time:	Received By:	Date/Time:	Reporting Format: (check)				
Adam J. Jones	6/3/97 1735			NORMAL	—	S.D. HMM	—	
Relinquished By:	Date/Time:	Received By:	Date/Time:	RWQCB	—	OTHER	—	
Relinquished By:	Date/Time:	Received For Lab By:	Date/Time:	Sample Integrity: (check)				
				Intact	—	on ice	—	

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pickup samples.

**F A X****MONTGOMERY WATSON****250 N. Madison Avenue  
Pasadena, California 91101****Date:** 6/5/97**Tel:** 818 568 6508  
**Fax:** 818 796 5941**To:** Mark Noorani**Fax No:** (714) 832-0067**From:** Steve Reiners**Reference:** MDRC**Subject:** Additional Analyses**No. of Pages:** 1  
(including cover)**Comments:**

Please perform the California Waste Extraction Test (WET) on the following samples only for the indicated constituents on standard turn-around time:

PL-GS-1-2.5' for Chromium (total) and Lead (total)  
PL-GS-3-3' for Chromium (total)

Please delete the carbon chain analysis, and add TPHd (8015M) and TPHg (8015M) for the following samples on standard turn-around time:

Equipment Blank (collected 6/3/97)  
Rinsate Blank (collected 6/3/97)

Additionally, please add TPHg (8015M) for the following samples on standard turn-around time:

Equipment Blank (collected 6/2/97)  
Rinsate Blank (collected 6/2/97)

Please call me at (818) 568-6334 to confirm your receipt of this fax.  
Thanks!

*If you do not receive all pages, or if there are any problems with this transmission, please call Brenda Whitney at 818-568-6514.*

TOTAL P.01



## ***ORANGE COAST ANALYTICAL, INC.***

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067  
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

### **LABORATORY REPORT FORM**

Laboratory Name: ORANGE COAST ANALYTICAL, INC.

Address: 3002 Dow Suite 532 Tustin, CA 92780

Telephone: (714) 832-0064

Laboratory Certification

(ELAP) No.: 1416 Expiration Date: 1999

Laboratory Director's Name (Print): Mark Noorani

Client: Montgomery Watson

Project No.: 1206035.01090010

Project Name: The Boeing Company

Laboratory Reference: MWI 9849

Analytical Method: EPA 8260, 8270, Title 22 Metals

Date Sampled: 12/31/97

Date Received: 12/31/97

Date Reported: 01/05/98

Sample Matrix: Water & Soil

Chain of Custody Received: Yes

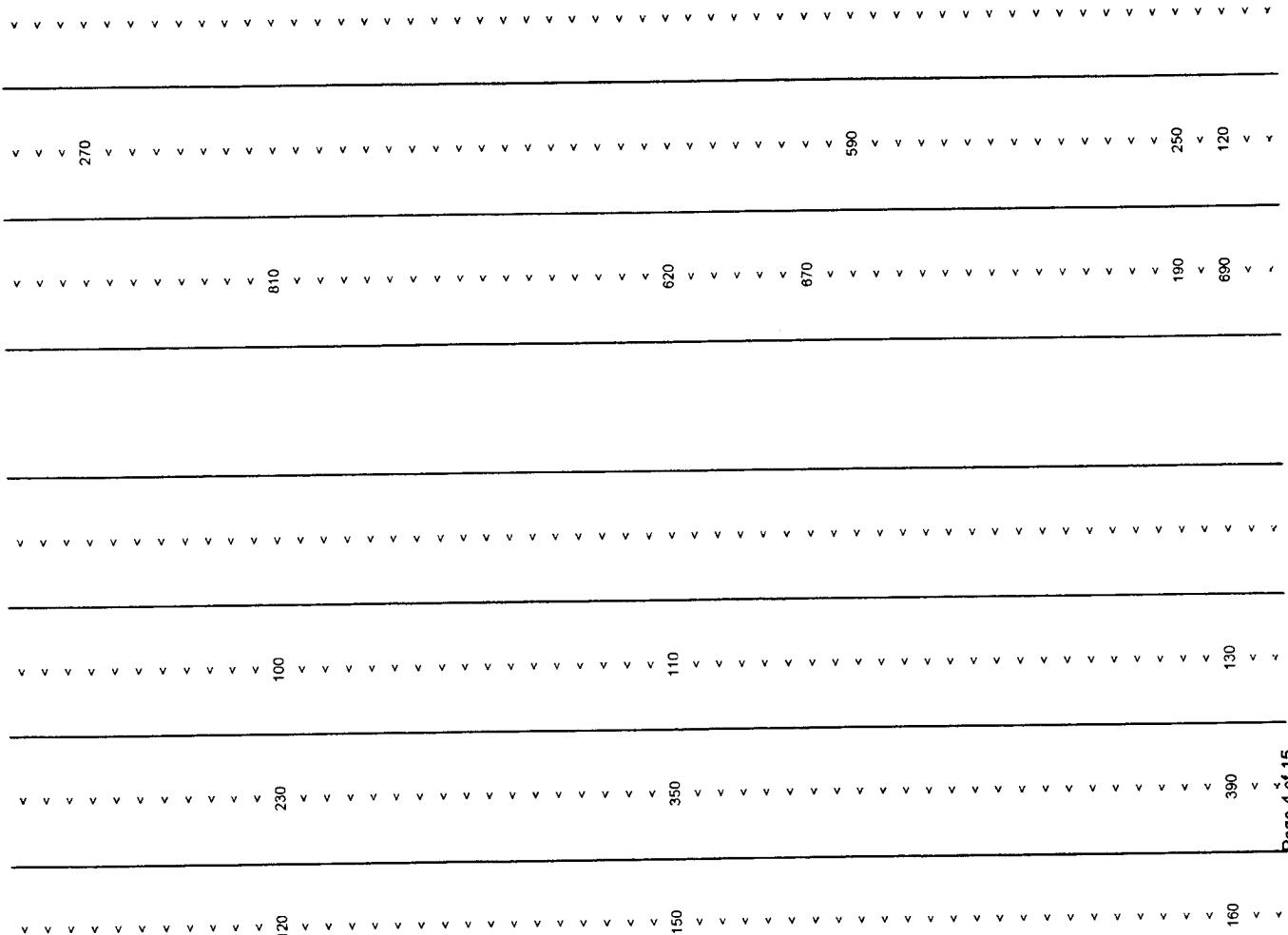
Laboratory Director's Signature: Mark Noorani

SAMP TYPE		S	S	S	S	S	S	S	S	S	W
RES CODE	PP01	PP01	B41-LTU1-GS-4	B41-LTU1-GS-1	PP01	B37ST-GS-1	PP01	B37CL-LTU1-GS-1	PP01	BF11	EQUIP BLANK
SAMP ID	B41-LTU1-COMP	12/31/97	12/31/97	12/31/97	12/31/97	12/31/97	12/31/97	12/31/97	12/31/97	12/31/97	12/31/97
SAMP DATE	08/10/08	30/10/25	08/10/08	08/10/08	08/10/08	08/10/08	08/10/08	08/10/08	08/10/08	08/10/08	08/10/08
SAMP TIME											
SAMP DEPTH											
PRESERVED											
ICED											
RECEIVED	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N. H.
REC TIME	12/31/97	12/31/97	12/31/97	12/31/97	12/31/97	12/31/97	12/31/97	12/31/97	12/31/97	12/31/97	Y
BASIS	11:35	11:35	11:35	11:35	11:35	11:35	11:35	11:35	11:35	11:35	12/31/97
METHOD	LIMIT1	LAB CAS ID	PF	SURROG	Units	LAB CHEM					
ID	SOIL	WATER	CODE	FLG							
418.1	8.0	0.5	T		ppm	Extractable Hydrocarbons					
6010	5.0	0.5	T		ppm	Tested					
6010	1.0	0.1	T		ppm	Antimony	<	01/02/98	01/02/98	<	01/02/98
6010	0.1	0.01	T		ppm	Arsenic	8.9	01/02/98	01/02/98	4.5	4.4
6010	0.1	0.01	T		ppm	Barium	78	01/02/98	01/02/98	82	100
6010	0.1	0.01	T		ppm	Beryllium	<	01/02/98	01/02/98	<	<
6010	0.1	0.01	T		ppm	Cadmium	1.1	01/02/98	01/02/98	1.1	1.1
7198	0.5	0.01	T		ppm	Chromium (VI)	<	01/02/98	01/02/98	<	12/31/97
6010	0.1	0.01	T		ppm	Tested		01/02/98	01/02/98	01/02/98	01/02/98
6010	0.5	0.1	T		ppm	Chromium Total	12	01/02/98	01/02/98	19	14
6010	0.1	0.01	T		ppm	Cobalt	6.1	01/02/98	01/02/98	6.0	8.0
6010	1.0	0.1	T		ppm	Copper	14	01/02/98	01/02/98	22	16
6010	0.1	0.01	T		ppm	Lead	3.8	01/02/98	01/02/98	19	4.5
7471	0.01	0.002	T		ppm	Mercury	<	01/02/98	01/02/98	12/31/97	12/31/97
6010	0.5	0.1	T		ppm	Tested		01/02/98	01/02/98	<	01/02/98
6010	0.5	0.1	T		ppm	Molybdenum	<	01/02/98	01/02/98	<	01/02/98
6010	0.5	0.1	T		ppm	Nickel	8.6	01/02/98	01/02/98	8.7	9.8
6010	1.0	0.1	T		ppm	Selenium	<	01/02/98	01/02/98	<	<
6010	0.1	0.01	T		ppm	Silver	<	01/02/98	01/02/98	<	<
6010	5.0	0.5	T		ppm	Thallium	<	01/02/98	01/02/98	<	<
6010	0.5	0.1	T		ppm	Vanadium	22	01/02/98	01/02/98	21	25
6010	0.1	0.01	T		ppm	Zinc	31	01/02/98	01/02/98	35	41
STLC	5.0	S	S	S	S	Tested					
	1.0	S	S	S	S	Antimony					
	0.1	S	S	S	S	Arsenic					
	0.1	S	S	S	S	Barium					
	0.1	S	S	S	S	Beryllium					
	0.5	S	S	S	S	Cadmium					
	0.1	S	S	S	S	Chromium (VI)					
	0.5	S	S	S	S	Chromium Total					
	0.1	S	S	S	S	Cobalt					
	0.1	S	S	S	S	Copper					
	1.0	S	S	S	S	Lead					
	0.01	S	S	S	S	Mercury					





8270	100	5.0	111-91-1	T	ppb	Bis(2-chloroethoxy)methane
8270	100	5.0	111-44-4	T	ppb	Bis(2-chloroethyl)ether
8270	100	5.0	33639-32-9	T	ppb	Bis(2-chloroisopropyl)ether
8270	100	3.0	117-81-7	T	ppb	Bis(2-ethylhexyl)phthalate
8270	100	5.0	101-55-3	T	ppb	4-Bromophenyl phenyl ether
8270	100	5.0	85-98-7	T	ppb	Butyl benzyl phthalate
8270	100	5.0	106-47-8	T	ppb	4-Chloroaniline
8270	100	5.0	91-58-7	T	ppb	2-Chlorophthalene
8270	100	5.0	59-50-7	T	ppb	4-Chloro-3-methylphenol
8270	100	5.0	95-57-8	T	ppb	2-Chlorophenol
8270	100	5.0	7005-72-3	T	ppb	4-Chlorophenyl phenyl ether
8270	100	5.0	218-01-09	T	ppb	Chrysene
8270	100	25	53-70-3	T	ppb	Dibenz(a,h)anthracene
8270	100	5.0	132-64-9	T	ppb	Dibenzoturan
8270	250	5.0	84-74-2	T	ppb	Di-N-butyl phthalate
8270	100	5.0	541-73-1	T	ppb	1,3-Dichlorobenzene
8270	100	5.0	106-46-7	T	ppb	1,4-Dichlorobenzene
8270	100	5.0	95-50-1	T	ppb	1,2-Dichlorobenzene
8270	100	5.0	91-94-4	T	ppb	3,3-Dichlorobenzidine
8270	100	5.0	120-83-2	T	ppb	2,4-Dichlorophenol
8270	100	5.0	84-66-2	T	ppb	Diethyl phthalate
8270	100	5.0	105-67-9	T	ppb	2,4-Dimethylphenol
8270	100	5.0	131-11-3	T	ppb	Dimethyl phthalate
8270	100	5.0	534-52-1	T	ppb	4,6-Dinitro-2-methylphenol
8270	100	5.0	51-28-5	T	ppb	2,4-Dinitrophenol
8270	250	5.0	121-14-2	T	ppb	2,4-Dinitrotoluene
8270	250	5.0	606-20-2	T	ppb	2,6-Dinitrotoluene
8270	250	25	117-84-0	T	ppb	Di-N-octyl phthalate
8270	100	5.0	206-44-0	T	ppb	Fluoranthene
8270	100	5.0	86-73-7	T	ppb	Fluorene
8270	100	5.0	118-74-1	T	ppb	Hexachlorobenzene
8270	100	5.0	67-68-3	T	ppb	Hexachlorobutadiene
8270	100	5.0	77-47-4	T	ppb	Hexachlorocyclopentadiene
8270	100	5.0	67-72-1	T	ppb	Hexachloroethane
8270	100	5.0	193-39-5	T	ppb	Indeno[1,2,3-c]pyrene
8270	100	5.0	78-59-1	T	ppb	Isophorone
8270	100	5.0	91-57-6	T	ppb	2-Methylnaphthalene
8270	100	5.0	95-48-7	T	ppb	2-Methylphenol
8270	100	5.0	106-44-5	T	ppb	4-Methylphenol
8270	100	5.0	91-20-3	T	ppb	Naphthalene
8270	250	5.0	88-74-4	T	ppb	2-Nitroaniline
8270	100	5.0	100-02-7	T	ppb	3-Nitroaniline
8270	250	50	99-09-2	T	ppb	4-Nitroaniline
8270	250	50	100-01-6	T	ppb	Nitrobenzene
8270	100	5.0	621-64-7	T	ppb	2-Nitrophenol
8270	100	5.0	62-75-9	T	ppb	4-Nitrophenol
8270	250	50	87-86-5	T	ppb	N,N-Nitrosodiphenylamine
8270	100	5.0	85-01-8	T	ppb	Pentachlorophenol
8270	100	5.0	108-95-2	T	ppb	Phenanthrene
8270	100	5.0	129-00-0	T	ppb	Phenol
8270	100	5.0	120-82-1	T	ppb	Pyrene
8270	100	5.0	95-95-4	T	ppb	1,2,4-Trichlorobenzene
8270	100	5.0	130	v	ppb	2,4,5-Trichlorophenol



				2,4,6-Trichlorophenol			
				Tested		Dilution Factor	
				ppb	PCB-1016	ppb	PCB-1221
8270	100	5.0	88.06-2	T	12874-11-2	T	ppb
		20	5.0	11104-28-2	T	ppb	PCB-1232
		8080	20	5.0	11141-16-5	T	ppb
		8080	20	5.0	53469-21-9	T	ppb
		8080	20	5.0	12872-29-6	T	ppb
		8080	20	5.0	11097-69-1	T	ppb
		8080	20	5.0	11096-82-5	T	ppb
				Tested		Dilution Factor	
				ppb	Aldrin	ppb	alpha-BHC
				ppb	beta-BHC	ppb	gamma-BHC
				ppb	gamma-BHC (Lindane)	ppb	Chlordane
				ppb	4,4'-DDD	ppb	4,4'-DDT
				ppb	4,4'-DDE	ppb	4,4'-DDT
				ppb	Dieldrin	ppb	Dieldrin
				ppb	Endosulfan I	ppb	Endosulfan II
				ppb	Endosulfan sulfate	ppb	Endosulfan sulfate
				ppb	Endrin	ppb	Endrin aldehyde
				ppb	Heptachlor	ppb	Heptachlor epoxide
				ppb	Methoxychlor	ppb	Toxaphene
				Tested		Up to & Including C-12	
				T	T	ppm	C13-22
				T	T	ppm	C23 & Higher
				T	T	ppm	Total
				T	T	ppm	Tested
				T	T	ppm	Diesel
				T	T	ppm	Tested
				T	T	ppm	Gas
				T	T	ppm	Tested
				T	T	ppm	TOC
				T	T	ppm	Calion Exchange Capacity

(a) QC units for Method 8270 are reported in ng.

QC(S)																		
W	W	BT11	TRIP BLANK	12/31/97														
RINSATE BLANK																		
12/31/97																		
11:10																		
, N, H	, N, H																	
Y	Y																	
12/31/97	12/31/97																	
11:35	11:35																	
W	W																	
97120590	97120591	LAB SAMP NO	R1 T CONC	SL <sup>(a)</sup>	RECOVER	D RECOVER	RPD	LAB SAMP NO	R1 T CONC	SL <sup>(a)</sup>	RECOVER	D RECOVER	RPD	LAB SAMP NO	R1 T CONC			
01/02/98																		
<	01/02/98	97120585	0.0	5.0	5.1	5.0	102	100	2	01/02/98	97120587	0.0	3.00	3.07	102	103	0	
<	97120585	1.4	5.0	6.5	6.3	102	98	3	97120587	0.0	1.00	1.00	1.00	100	100	0		
<	97120585	7.9	5.0	13.4	12.9	110	100	4	97120587	0.00	0.100	0.084	0.084	84	84	0		
<	97120585	0.00	1.00	0.93	0.89	93	89	4	97120587	0.00	0.100	0.095	0.096	95	96	1		
<	97120585	0.12	1.00	0.98	0.95	86	83	3	97120587	0.00	0.100	0.093	0.094	93	94	1		
12/31/97	12/31/97																	
<	97120585	0.00	1.00	1.00	1.00	100	100	0	97120580	0.00	0.50	0.49	0.49	98	98	0		
01/02/98																		
<	01/02/98	97120585	1.50	1.00	2.47	2.38	97	88	4	01/02/98	97120587	0.0	0.100	0.094	94	94	0	
<	97120585	0.70	1.00	1.59	1.53	89	83	4	97120587	0.00	0.100	0.086	0.086	98	98	0		
<	97120585	1.40	1.00	2.37	2.28	97	88	4	97120587	0.00	0.100	0.086	0.086	98	98	2		
<	97120585	0.44	1.0	1.2	1.2	76	76	0	97120587	0.00	1.00	0.96	0.95	98	95	1		
12/31/97	12/31/97																	
<	97120585	0.000	0.020	0.022	0.024	110	120	9	OCA 100	0.000	0.020	0.019	0.019	95	95	0		
01/02/98																		
<	01/02/98	97120585	0.0	1.0	0.95	0.92	95	92	3	01/02/98	97120587	0.0	1.00	0.99	1.03	99	103	4
<	97120585	0.99	5.00	5.80	5.58	96	92	4	97120587	0.00	0.50	0.47	0.48	94	96	2		
<	97120585	0.0	5.0	4.2	4.1	84	82	2	97120587	0.00	1.00	1.02	1.02	101	102	1		
<	97120585	0.0	5.0	5.0	4.8	100	98	4	97120587	0.00	0.50	0.53	0.53	100	106	6		
<	97120585	0.0	5.0	4.2	4.1	84	82	2	97120587	0.00	3.00	3.04	3.04	101	101	0		
<	97120585	2.7	5.0	7.0	6.7	86	80	4	97120587	0.00	0.50	0.45	0.46	90	92	2		
<	97120585	3.4	5.0	7.5	7.2	82	76	4	97120587	0.000	0.100	0.099	0.099	100	99	1		

MWI 9849

01/05/98	1	v v	01/05/98	100	0	OCA100	0.0	20	16	16	80	80	OCA200	0.0	50
01/02/98	1	v v	01/02/98	50	50	OCA200	0.0	20	16	16	80	80	OCA200	0.0	50
01/02/98	1	v v	01/02/98	50	50	OCA200	0.0	20	17	17	85	85	OCA200	0.0	50
01/05/98	1	v v	01/05/98	98	98	OCA100	0.0	20	17	17	85	85	OCA200	0.0	50
01/02/98	1	v v	01/02/98	98	98	OCA100	0.0	20	16	16	80	80	OCA200	0.0	50

MWI 9849

50	0.0	0	0.0	0.0	0	50
OCA200						
0	0	0	0	0	0	0
80	80	80	80	80	80	80
16	16	16	16	16	16	16
OCA100						
0	0	0	0	0	0	0
102	102	102	102	102	102	102
51	51	51	51	51	51	51
46	46	46	46	46	46	46
92	92	92	92	92	92	92
OCA200						
0.0	0.0	0.0	0.0	0.0	0.0	0.0
50	50	50	50	50	50	50
OCA200						
110	107	107	104	104	104	107
97	96	96	96	96	96	97
107	104	104	104	104	104	107
01/05/98	01/02/98	01/02/98	01/02/98	01/02/98	01/02/98	01/05/98
0.0	0.0	0.0	0.0	0.0	0.0	0.0
50	50	50	50	50	50	50
44	39	39	39	39	39	44
78	88	88	88	88	88	78
12	12	12	12	12	12	12
OCA100						
0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	50	50	50	50	50	39
42	39	39	39	39	39	42
78	78	78	78	78	78	78
84	84	84	84	84	84	84
7	7	7	7	7	7	7

Page 8 of 15

v v

v v

1

01/05/98

BOE-C6-0038866

MVVI 9849

OCA200	0.0	100	72	80	80	11	OCA100	0.0	100	72	78	78	8				
OCA200	0.0	100	67	74	74	10	OCA100	0.0	100	73	78	78	7				
OCA200	0.0	50	35	38	70	76	OCA100	0.0	50	30	32	60	64	6			
OCA200	0.0	50					OCA100	0.0									
OCA200	0.0	50					OCA100	0.0									
OCA200	0.0	50					OCA100	0.0									
OCA200	0.0	50					OCA100	0.0									
OCA200	0.0	50					OCA100	0.0									
OCA200	0.0	50					OCA100	0.0									
OCA200	0.0	50					OCA100	0.0									
OCA200	0.0	50					OCA100	0.0									
OCA200	0.0	50					OCA100	0.0									
OCA200	0.0	50					OCA100	0.0									
OCA200	0.0	50					OCA100	0.0									
OCA200	0.0	50					OCA100	0.0									
OCA200	0.0	50					OCA100	0.0									
OCA200	0.0	50					OCA100	0.0									
OCA200	0.0	50					OCA100	0.0									

MWII 9849

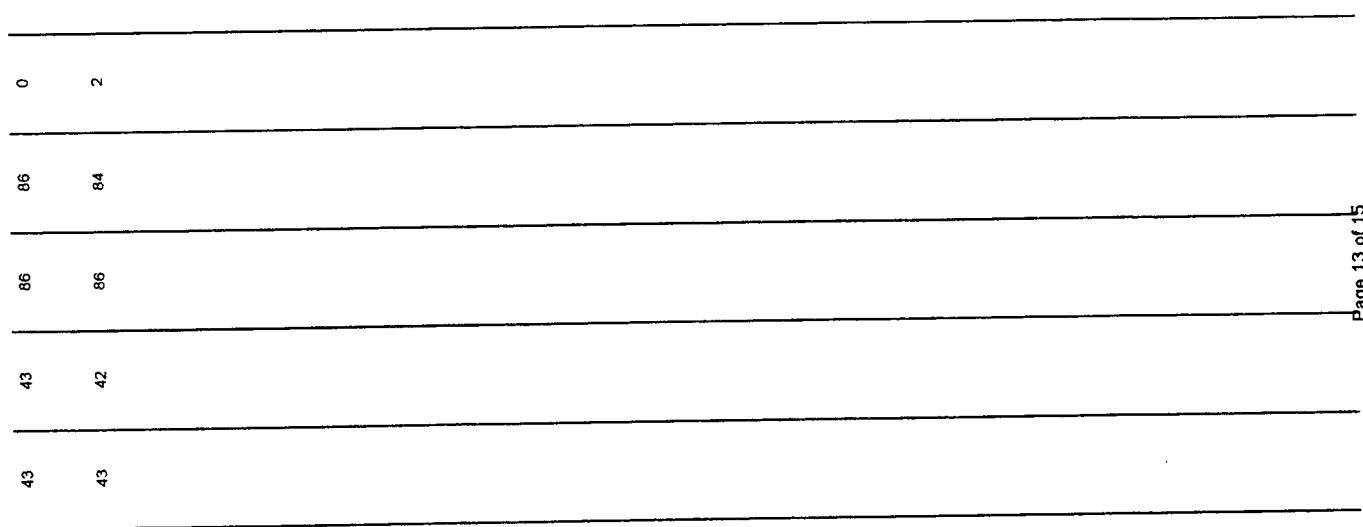
SL <sup>(e)</sup>	DL <sup>(e)</sup>	RECOVER	D RECOVER	RPD

MWI 9849

OCA100 0.0 20  
0  
#DV0!

43	42	86	84	2
45	45	90	90	0
42	43	84	86	2
				Page 12 of 15

MVVI 9849



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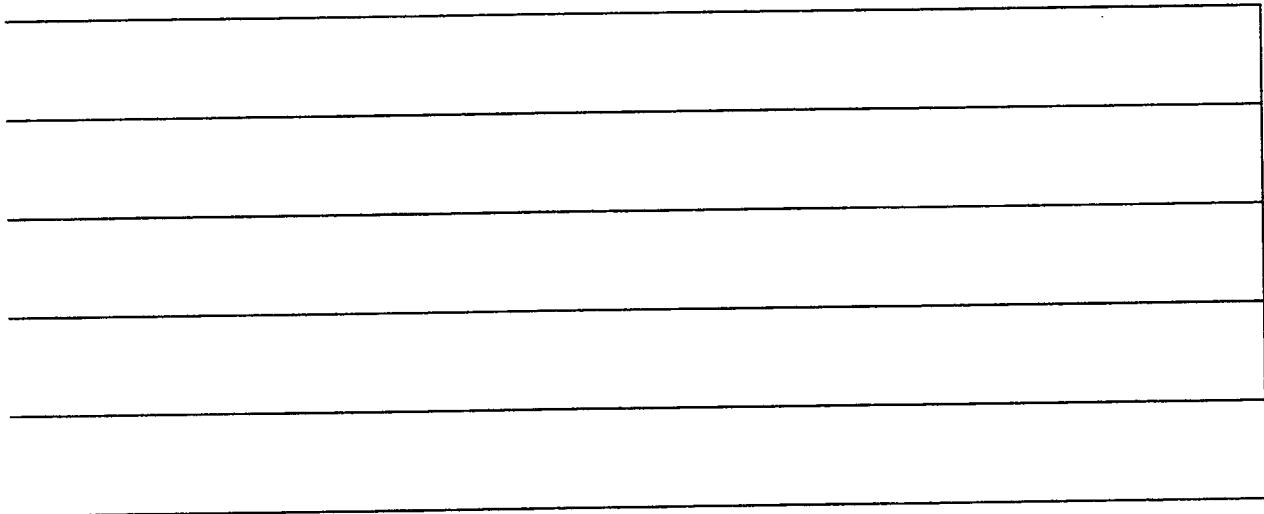
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MVVI 9849





**ORANGE COAST ANALYTICAL, INC.**      **Analysis Request and**  
**Chain of Custody Record**

3002 Dow, Suite 532  
 Tustin, CA 92680  
 (714) 832-0064, Fax (714) 832-0067

Lab Job No: 1      Page 1 of 1  
 1 Soc's ANALYTICAL DUE BY 1/31/97  
 REQUIRED TAT: STANDARD TAT ON WATER

CUSTOMER INFORMATION		PROJECT INFORMATION						REMARKS/PRECAUTIONS	
COMPANY:	CONTACT:	PROJECT NAME:	CONTAINER	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	PRES.	
Monogramm WATSON	SEND REPORT TO: FPD Shaws	NUMBER: 1206035.01090010	2	12/31/97	0810	SOIL	2"X6" SS SCREEN	ICE	Composite to B41-LTU1-GS-2,3
ADDRESS: 250 N Madison Ave	ANALYSTS/METHOD:	LOCATION: C-6 Facility	2		0830				
Pasadena, CA 91101	REBUSES/TEST:	ADDRESS: 1950 S Normandie Ave	2		1025				
PHONE: (626)568-6582 FAX: (626)5796-3941	SAMPLED BY: SVI CW/AN	ADDRESS: Los Angeles, CA 90501	2	12/31/97	0845				
* = COMPOSITE AT LAB									
B41-LTU1-GS-2		2	0910						
B41-LTU1-GS-3		2	0925						
B41-LTU1-GS-5		2	1020						
B41-LTU1-COMP		2	1045						
B41-LTU1-GS-4		2	1110						
B41-LTU2-GS-1		2	1110						
PL-LTU1-GS-3		2							
B37ST-GS-1		2							
B41-LTU2-GS-2		2							
B37CL-LTU1-GS-4		2							
Equipment Blank		6	1100	WATER	3" x 6" <sup>number</sup> <sub>SS</sub>		X X X		
Rinsate Blank		6	1110				X X X		
Trip Blank		2				200g HCl	X X		
Total No. of Samples: 12		Method of Shipment: Orange Coast Courier						Reporting Format: (check)	
Relinquished By: Christopher Wong	Date/Time: 12/31/97	Received By:	Date/Time:	NORMAL	OTHER	S.D. HMMD			
Relinquished By:	Date/Time:	Received By:	Date/Time:	RWQCB	OTHER				
Relinquished By:	Date/Time:	Received For Lab By:	Date/Time:	Sample Integrity: (check)					
				on ice					

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pickup samples.



## ***ORANGE COAST ANALYTICAL, INC.***

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067  
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (602) 736-0960 Fax (602) 736-0970

### **LABORATORY REPORT FORM**

Laboratory Name: ORANGE COAST ANALYTICAL, INC.

Address: 3002 Dow Suite 532 Tustin, CA 92780

Telephone: (714) 832-0064

Laboratory Certification

(ELAP) No.: 1416 Expiration Date: 1999

Laboratory Director's Name (Print): Mark Noorani

Client: Montgomery Watson

Project No.: 1206035.01090010

Project Name: The Boeing Company

100129870

Analytical Method: 418.1,8260,8270,8080, Title 22 Metals,TCLP,STLC

Date Sampled: 03/11/98

Date Received: 03/11/98

Date Reported: 03/18/98

Sample Matrix: Water & Soil

Chain of Custody Received: Yes

Laboratory Director's Signature: Mark Noorani

SAMP TYPE	RES CODE	S	S	S	S	S	S	S	S	S	S
SAMP ID	B37ST-GS-1.4'	PP01	B37ST-GS-2.4'	PP01	B37ST-GS-3.4'	PP01	B37ST-GS-4.4'	PP01	B37ST-GS-5.3'	PP01	B37ST-GS-6.4'
SAMP DATE	03/11/98	03/11/98	03/11/98	03/11/98	03/11/98	03/11/98	03/11/98	03/11/98	03/11/98	03/11/98	03/11/98
SAMP DEPTH	8.07	8.19	8.25	8.58	8.45	8.58	8.45	8.58	9.03	9.38	9.46
PRESERVED	4'	4'	4'	4'	4'	4'	4'	4'	4'	11'	11'
ICED											
RECEIVED	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
REC TIME	03/11/98	03/11/98	03/11/98	03/11/98	03/11/98	03/11/98	03/11/98	03/11/98	03/11/98	03/11/98	03/11/98
BASIS	13.25	13.25	13.25	13.25	13.25	13.25	13.25	13.25	13.25	13.25	13.25
UNITS	W	W	W	W	W	W	W	W	W	W	W
TESTED											
EXTRACTABLE HYDROCARBONS											
LAB CODE	98030079	98030080	98030081	98030082	98030083	98030084	98030085	98030086	98030087	98030088	98030089
TESTED											
ANTIMONY											
ARSENIC											
BARIUM											
BERYLLIUM											
CADMIUM											
TESTED											
CHROMIUM (VI)											
TESTED											
CHROMIUM TOTAL											
COBALT											
COPPER											
LEAD											
TESTED											
MERCURY											
TESTED											
MALDIENUM											
NICKEL											
SELENIUM											
SILVER											
THALLIUM											
VANADIUM											
ZINC											
TESTED											
ANTIMONY											
ARSENIC											
BARIUM											
BERYLLOIUM											
CADMIUM											
CHROMIUM (VI)											
CHROMIUM TOTAL											
COBALT											
COPPER											
LEAD											
MERCURY											
STLC	5.0	S	S	S	S	S	S	S	S	S	S
	1.0	S	S	S	S	S	S	S	S	S	S
	0.1	S	S	S	S	S	S	S	S	S	S
	0.1	S	S	S	S	S	S	S	S	S	S
	0.5	S	S	S	S	S	S	S	S	S	S
	0.1	S	S	S	S	S	S	S	S	S	S
	0.5	S	S	S	S	S	S	S	S	S	S
	0.1	S	S	S	S	S	S	S	S	S	S
	1.0	S	S	S	S	S	S	S	S	S	S
	0.01	S	S	S	S	S	S	S	S	S	S

MW1 10012





## MWI 10012

					2,4,6-Trichlorophenol
					<i>Tested</i>
					<i>Dilution Factor</i>
8270	100	5.0	88-06-2	T	
					ppb
8080	20	5.0	12674-11-2	T	ppb
8080	20	5.0	11104-28-2	T	ppb
8080	20	5.0	11141-16-5	T	ppb
8080	20	5.0	53489-21-9	T	ppb
8080	20	5.0	12672-29-6	T	ppb
8080	20	5.0	11097-99-1	T	ppb
8080	20	5.0	11098-92-5	T	ppb
8080	1.0	0.1	309-00-2	T	<i>Tested</i>
8080	1.0	0.2	319-84-6	T	<i>Dilution Factor</i>
8080	1.0	0.2	319-85-7	T	ppb
8080	2.0	0.2	319-86-8	T	ppb
8080	1.0	0.2	58-89-9	T	ppb
8080	10	0.2	57-74-9	T	ppb
8080	2.0	0.5	72-54-9	T	ppb
8080	5.0	0.1	72-55-9	T	ppb
8080	1.0	0.1	50-28-3	T	ppb
8080	2.0	0.5	60-57-1	T	ppb
8080	1.0	0.5	859-98-8	T	ppb
8080	2.0	0.5	33213-55-9	T	ppb
8080	10	0.5	1031-07-8	T	ppb
8080	2.0	0.02	72-20-8	T	ppb
8080	2.0	0.2	7421-93-4	T	ppb
8080	1.0	0.1	76-44-8	T	ppb
8080	1.0	0.2	1024-57-3	T	ppb
8080	30	0.0	72-43-5	T	ppb
8080	35	0.5	8001-35-2	T	ppb
8015m				T	<i>Tested</i>
8015m				T	ppm Up to & Including C-12
8015m				T	ppm C13-22
8015m				T	ppm C23 & Higher
8015m	8.0	0.5		T	ppm Total
8015m	8.0	0.5		T	ppm <i>Tested</i>
8015m	5.0	0.05		T	ppm Diesel
9060	5.0	1.0		T	ppm <i>Tested</i>
9060	5.0	1.0		T	ppm TOC
9081	1.0	1.0		T	ppm Cation Exchange Capacity

(a) QC units for Method 8270 are reported in mg.



3/18/98

98030084 0.00 1.00 0.92

95

3

		03/13/98	1	98030083	0.0	20	17
		03/11/98	2	98030083	0.0	20	19
		03/13/98	1	98030082	0.0	20	17
		03/11/98	2	98030082	0.0	20	17
		03/13/98	1	98030082	0.0	20	17
		03/11/98	2	98030082	0.0	20	17
		03/13/98	1	98030082	0.0	20	17
		03/11/98	2	98030082	0.0	20	17
		03/13/98	1	98030082	0.0	20	17
		03/11/98	2	98030082	0.0	20	17
		03/13/98	1	98030082	0.0	20	17
		03/11/98	2	98030082	0.0	20	17



MW# 10012

98030088	0.0	100	86	90	90	5	OCA100	0.0	100	81	50	45
98030088	0.0	100	73	77	77	5	OCA100	0.0	100	77	50	45
98030088	0.0	100	46	47	92	2	OCA100	0.0	50	38	0	39
98030088	0.0	50	50	46	47	94	OCA100	0.0	50	50	100	100
98030088	0.0	100	90	86	86	0	OCA100	0.0	0	86	50	41
98030088	0.0	100	73	77	77	5	OCA100	0.0	0	73	50	39

V V

V V

V V

V V

300

170

250

V V

V V

MWI 10012

v	03/16/98	1	v v
v	03/16/98	1	v v
v	03/16/98	1	v v
v			
v			
v			
v			
v			
v			
v			
v			
v			
v			

DL <sup>(e)</sup>	RECOVER	D RECOVER	RPD
2	1	1	5
1.01	98	101	3
1.08	108	108	0
0.114	98	100	2
0.103	101	103	2
0.096	95	96	1
0.56	118	112	5
0.099	99	99	0
0.099	97	99	2
0.199	108	112	2
1.39	98	100	1
0.019	85	95	11
1.04	100	104	4
0.521	103	104	1
1.12	109	112	3
0.424	88	85	4
0.969	95	97	2
0.510	101	102	1
0.413	89	93	1

19	85	95	11
19	85	95	11
20	95	100	5

18	18	85	90	90	6	6	38	78	78	3
----	----	----	----	----	---	---	----	----	----	---

77	81	77	5						
71	77	71	8						
				3					
					74				
						76			
							37		
								44	88
								90	2
								95	12
								84	84
								19	15
								22	19
								40	80
								78	2
								39	78
									0

14	32	28	13
0.50	58	50	11

**MONTGOMERY WATSON****250 N. Madison Avenue  
Pasadena, California 91101****Tel: 626-568-6582  
Fax: 626-568-6515****Date:** March 13, 1998**To:** Mark Noorani **Fax No:** 714-832-0067**From:** Jim Meuse **Reference:** BRC**Subject:** Additional analyses **No. of Pages:** 1  
**(including cover)****Comments:**

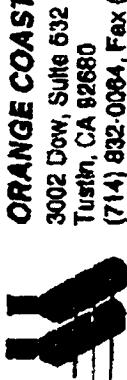
Please perform the California Waste Extraction Test (WET) and TCLP analysis for Total Chromium only on the following sample on a 24-hour turn-around time:

**B37ST-GS-6-4'**

Please call me at (626) 568-6518 to confirm your receipt of this fax.

*If you do not receive all pages, or if there are any problems with this transmission, please call 626-568-6582.*

TOTAL P.01



**ORANGE COAST ANALYTICAL, INC.**  
3002 Dow, Suite 632  
Tustin, CA 92680  
(714) 832-0084, Fax (714) 832-0087

**Analysis Request and  
Chain of Custody Record**

Lab Job No.: 1 of 1  
Page 1 of 1

**SEE REMARKS FIELD**

**CUSTOMER INFORMATION**

Customer Information		Project Information				Method of Shipment				Remarks			
Customer Name:	Address:	Project Name:	Number:	Location:	Sample:	Method:	Container:	Time:	Sample:	Method:	Container:	Time:	Sample:
Mathewesey Watson 576 S. Broadway	250 N Madison Ave Pasadena, CA 91105	The Boiling Company	1206895.0100000	Location 8-6 Facility 7	2	9/1/98	0807	501L	6" x 6"	X	X	Due by noon on 3/3/98 by 4pm if not	0308
					2	3/1/98	0819			X	X		0270
					2	3/1/98	0825			X	X		0260
					2	3/1/98	0845			X	X		0263
					2	3/1/98	0858			X	X		0264
					2	3/1/98	0903			X	X		0265
					2	3/1/98	0938			X	X		0266
					2	3/1/98	0946			X	X		0267
					2	3/1/98	0955			X	X		0268
					2	3/1/98	1000			X	X		0269
					2	3/1/98	1050			X	X		0271
					2	3/1/98	1100			X	X		0272
					7	3/1/98	1245	Water Sample		X	X	Standard TAT	
					7	3/1/98	1250			X	X		
Total No. of Samples:	15	Method of Shipment: <u>Orange Coast Lab Courier, 2 couriers</u>											
Released By:	Date/Time:	Received By:	Date/Time:										
<u>John H. Nunez</u>	<u>3/1/98 1325</u>												
Released By:	Date/Time:	Received By:	Date/Time:										
Released By:	Date/Time:	Received For Lab By:	Date/Time:										

Reporting Format: (check)	Date/Time:	Method:	Normal	S.O. Hand	Other

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pickup samples.

**F A X****MONTGOMERY WATSON**250 N. Madison Avenue  
Pasadena, California 91101Tel: 626-568-6582  
Fax: 626-568-6515**Date:** March 13, 1998**To:** Mark Noorani**Fax No:** 714-832-0067**From:** Jim Meuse**Reference:** BRC**Subject:** Additional analyses**No. of Pages:** 1  
(including cover)**Comments:**

Please perform the California Waste Extraction Test (WET) and TCLP analysis for Total Chromium only on the following sample on a 24-hour turn-around time:

B37ST-GS-6-4'

Please call me at (626) 568-6518 to confirm your receipt of this fax.

*If you do not receive all pages, or if there are any problems with this transmission, please call 626-568-6582.*

TOTAL P.01

**ORANGE COAST ANALYTICAL, INC.**  
**Analysis Request and**  
**Chain of Custody Record**

3002 Dow, Suite 632  
 Tustin, CA 92680  
 (714) 832-0084, Fax (714) 832-0087

 A stylized drawing of a glass bottle with a label, positioned next to the company name.

REQUIRED BY: SEE REMARKS FIELD

CUSTOMER INFORMATION		ANALYST INFORMATION		REMARKS	
COMPANY: Manufacturing Works SODA MANUFACTURERS	ADDRESS: 250 N. Harrison Ave Pasadena, CA 91101	NAME: TRPH 418.1	NAME: TTFH 224260	REMARKS:	REMARKS:
NUMBER: 6532 INV#(626)796-35441	PHONE: (714) 653-1211	NUMBER: 2	PHONE: 714-505-01	REMARKS:	REMARKS:
ADDRESS: 1000 S. Raymond Ave Pasadena, CA 91105	NAME: J. V. Cole	NUMBER: 2	PHONE: 714-505-0270	REMARKS:	REMARKS:
NAME: John Watson	NAME: John Watson	NUMBER: 3	PHONE: 714-505-0260	REMARKS:	REMARKS:
NAME: John Watson	NAME: John Watson	NUMBER: 4	PHONE: 714-505-0264	REMARKS:	REMARKS:
NAME: John Watson	NAME: John Watson	NUMBER: 5	PHONE: 714-505-0265	REMARKS:	REMARKS:
NAME: John Watson	NAME: John Watson	NUMBER: 6	PHONE: 714-505-0266	REMARKS:	REMARKS:
NAME: John Watson	NAME: John Watson	NUMBER: 7	PHONE: 714-505-0267	REMARKS:	REMARKS:
NAME: John Watson	NAME: John Watson	NUMBER: 8	PHONE: 714-505-0268	REMARKS:	REMARKS:
NAME: John Watson	NAME: John Watson	NUMBER: 9	PHONE: 714-505-0269	REMARKS:	REMARKS:
NAME: John Watson	NAME: John Watson	NUMBER: 10	PHONE: 714-505-0271	REMARKS:	REMARKS:
NAME: John Watson	NAME: John Watson	NUMBER: 11	PHONE: 714-505-0272	REMARKS:	REMARKS:
NAME: John Watson	NAME: John Watson	NUMBER: 12	PHONE: 714-505-0273	REMARKS:	REMARKS:
NAME: John Watson	NAME: John Watson	NUMBER: 13	PHONE: 714-505-0274	REMARKS:	REMARKS:
NAME: John Watson	NAME: John Watson	NUMBER: 14	PHONE: 714-505-0275	REMARKS:	REMARKS:
NAME: John Watson	NAME: John Watson	NUMBER: 15	PHONE: 714-505-0276	REMARKS:	REMARKS:
		Method of Shipment:	Orange Coast AB	Carrier:	2. COURIER
		Received By:	Date/Time:	Reporting Format: (check)	
		Received By:	Date/Time:	NORMAL	S.O. HAND
		Received For Lab By:	Date/Time:	RWQCB	OTHER
		Received By:	Date/Time:	Sample Integrity: (check)	
		Received By:	Date/Time:	Intact	on ice
Filing Sheet By:		John Watson	3/11/98 1325	All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pickup samples.	
Filing Sheet By:		John Watson	3/11/98 1325		



**ORANGE COAST ANALYTICAL, INC.**  
**Analysis Request and**  
**Chain of Custody Record**

3002 Dow, Suite 532  
 Tustin, CA 92680  
 (714) 832-0064, Fax (714) 832-0067

**Montgomery Watson**  
**Environmental Services**  
**250 N Harrison Ave**  
**Baldwin, CA 91101**  
 PHONE: (626) 6582 FAX: (626) 796-5941

REQUIRED TAT: SEE REMARKS BELOW

Lab Job No:  
 Page \_\_\_\_\_

of 2

CUSTOMER INFORMATION		PROJECT INFORMATION						REMARKS/PRECAUTIONS	
COMPANY:	Montgomery Watson	PROJECT NAME:	The Boeing Company						
SEND REPORT TO:	Montgomery Watson	NUMBER:	1206035	0,0000,0					
ADDRESS:	250 N Harrison Ave	LOCATION:	9-6 Facility.						
		ADDRESS:	9503 S Normandie Ave						
			Los Angeles CA 90501						
		SAMPLE ID:	211/101/CCW.						
		NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	PRES.		
		2	3/11/98	0807	SOIL	"X" 6" SS SLEEVE ICE	X X X X		
		2	3/11/98	0819			X X X X		
		2	3/11/98	0825			X X X X		
		2	3/11/98	0845			X X X X		
		2	3/11/98	0858			X X X X		
		2	3/11/98	0903			X X X X		
		2	3/11/98	0938			X X X X		
		2	3/11/98	0946			X X X X		
		2	3/11/98	0955			X X X X		
		2	3/11/98	1000			X X X X		
		2	3/11/98	1050			X X X X		
		2	3/11/98	1100			X X X X		
		7	3/11/98	1245	WATER	WATER TEMP PRES HCl	X X X X		
		7	3/11/98	1250			X X X X		
		7	3/11/98	1250			X X X X		
		Total No. of Samples:	15						
Relinquished By:	Date/Time:	Received By:	Date/Time:						
Adam H. Nelson	3/11/98	1325							
Relinquished By:	Date/Time:	Received By:	Date/Time:						
Relinquished By:	Date/Time:	Received For Lab By:	Date/Time:						
Relinquished By:	Date/Time:								

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pickup samples.



**ORANGE COAST ANALYTICAL, INC.**  
**Analysis Request and**  
**Chain of Custody Record**

Lab Job No. 2  
 Page 2 of 2

REQUIRED TAT: SEE REMARKS BELOW

CUSTOMER INFORMATION		PROJECT INFORMATION					REMARKS/PRECAUTIONS
COMPANY:	Montgomery Watson	PROJECT NAME:	The Boeing Company				
SEND REPORT TO:	Fred Straus	NUMBER:	1206035-01090010				
ADDRESS:	250 N Madison Dr.	LOCATION:	C-G Facility				
ADDRESS:	Pasadena, CA 91101	ADDRESS:	19503 S Normandie Ave				
PHONE:	(626)568-6888 ext. 5941	LOG NUMBER:	CA 90501				
SAMPLED BY: <u>JK/AH/JM</u>		SAMPLE DATE:	SAMPLE TIME:	SAMPLE MATRIX:	CONTAINER TYPE:	PRES.	
SAMPLE ID	NO. OF CONTAINERS						
TRIP BLANK	2	3/1/98	—	water	Vials	HCl	
Method of Shipment: <u>Orange Coast Courier. 2 carriers</u>							
Relinquished By:	Date/Time:	Received By:	Date/Time:	Reporting Format: (check)			
<u>Adam J. Vento</u>	3/1/98 1325	<u>JK</u>		NORMAL	—	S.D. HMMD	
Relinquished By:	Date/Time:	Received By:	Date/Time:	RWQCB	—	OTHER	
<u>Adam J. Vento</u>	3/1/98 1325	<u>JK</u>					
Relinquished By:	Date/Time:	Received For Lab By:	Date/Time:	Sample Integrity: (check)			
<u>Adam J. Vento</u>	3/1/98 1325	<u>JK</u>		Intact	—	on ice	

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pickup samples.